ROUTLEDGE

CRITICAL ESSAYS

GILBERT RYLE

Collected Papers
Volume 1

Gilbert Ryle was one of the most important and controversial philosophers of the twentieth century. Long unavailable, *Collected Papers Volume 1: Critical Essays* includes many of Ryle's most important and thought-provoking papers.

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Gilbert Ryle (1900–1976) was Waynflete Professor of Metaphysical Philosophy and Fellow of Magdalen College, Oxford, an editor of *Mind* and a president of the Aristotelian Society.

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Critical Essays

Gilbert Ryle

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Foreword

Why study philosophers of the past? Not only for scholarship, nor, certainly, for a potted history of philosophical movements. If, *pace* the early Wittgenstein and the logical positivists, philosophers and logicians do have significant things to say, it may be that philosophers of the recent and remote past do so as well. When looking at the thoughts of past thinkers, we may find more than the 'primitive adumbrations of our most prized thoughts'; we may find that those we first patronisingly thought of as 'toddlers' were in fact 'pioneers', and those such as Plato, Locke or Mill, will 'talk to us across the ages' as 'colleagues' rather than as 'pupils' (Ryle 1970, 11). Ryle's interest in past philosophers was expressly orientated towards the way they would shed light on problems and perplexities that bothered him; his treatment of them is an exercise in which it is proper to look for 'dialectical moves of the same sorts as those which [he], in the same quandary, would be tempted or proud to make' (xxiv)*. In one of several asides lamenting the facile pigeon-holing of philosophical positions—'isms' in philosophy—Ryle acknowledges that though there is a risk of failing to do justice in expositions that are governed by one's own philosophical agenda, '. . . the alternative policy of expounding a thinker's thoughts without reference to his puzzles and difficulties is what has given

* Page references with no accompanying title, refer to this edition of *Collected Papers Volume 1*.

us our standard histories of philosophy, and that is calamity itself, and not the mere risk of it' (xxiv).

What is Ryle's overriding concern? It is a 'near life-time of enquiry' into his own entitlement to be an enquirer. Just what is he doing as a philosopher in studying language that differs from the linguist, etymologist or philologist? What distinguishes the status of philosophical assertions from those of a geographer, biologist or chemist? Ayer's interest in logical positivism indirectly got British philosophers of the 30s to reflect on the status of their own questions and answers, though they rejected the Circle's dictum 'Either Science or Nonsense' on the grounds that it contained too few 'or's (1970, 10).

For Ryle, the importance of looking at the work of other philosophers was strengthened by his visits to the Moral Sciences Club in Cambridge. There, veneration for Wittgenstein was so 'incontinent' that Ryle's own mentions of other philosophers were greeted by jeers. Although Wittgenstein properly distinguished exegetical questions from philosophical ones, he also gave the unfortunate impression to be proud not to have studied them (which he had done, Ryle tells us, but not much). Wittgenstein was also guilty in not recognising that those who did study thinkers of the past could be genuine philosophers and not simply academic ones. The contempt for thoughts other than Wittgenstein's seemed to Ryle 'pedagogically disastrous for the students and unhealthy for Wittgenstein himself. It made [Ryle] resolve, not indeed to be a philosophical polyglot, but to avoid being a monoglot; and most of all to avoid being one monoglot's echo, even though he was a genius and a friend' (1970, 11). Because he had as a student to learn, and then later to teach Plato, Aristotle, Descartes, Locke, Hume and Kant, Ryle recognised that some of the arguments 'were potent enough to make comparison of their author with, say, Wittgenstein' not only 'honorific', but more importantly, 'elucidatory' of both (1970, 11–12). So it is to the past we now turn to see how it helps us understand Ryle's particular concern about the nature of philosophical enquiry.

The later Plato is credited with pioneering the work for the 'anti-nonsense' philosophers. For he anticipated what was to become crucial for understanding the role of philosophy as the subject responsible for distinguishing, not between truths and falsehoods, as do the sciences, but between expressions which make sense and those which are nonsense. For according to Ryle, Plato's *Parmenides* anticipates most of the 'logical embar-

rassments' that were to befall Meinong; Hume's and Kant's accounts of assertions of existence; Kant's account of forms of judgement and categories; Russell's doctrine of propositional functions and theory of types; and 'more than any other, nearly the whole of Wittgenstein's *Tractatus Logico-Philosophicus*' (46).

In criticising his early (substantial) theory of Forms, Plato was in effect proving the need for a distinction between different types of universals: the argument of *Parmenides* is a primitive attempt to mark out the difference between formal concepts (such as 'not', 'exist', 'some', 'other', 'single', 'several', 'is an instance of' and so forth) which infect every proposition and are not peculiar to any special topics and proper or material concepts such as 'triangle' which occur in propositions of geometricians or 'catapult' in propositions describing shooting. Plato was also exhibiting a form of philosophical argumentation—the generation of antinomies and logically vicious regresses by the method of *reductio ad absurdum*—that Ryle would adopt as his own 'flail and winnowing fan' (220).

Though Locke's promiscuity with the notion of 'idea'—and his adoption of one use in particular—was to provide an important target for later German and English thinkers, one of his important positive contributions involved a 'healthy if incomplete manipulation' of Occam's razor in denying the real existence of fictitious objects. It was healthy in so far as, taken negatively, it elucidates what abstract propositions (those of philosophy and mathematics) are *not* about: they are not about real, subsistent objects. But there ought to be 'some other and less question-begging way' of saying how such propositions are about something though not about things in nature 'than by saying that they are about ideas in our minds' (141).

Locke showed that the truth of the abstract general propositions of pure mathematics as well as those of moral philosophy does not require the existence of subsistent objects that actually instantiate the properties which seem to be indicated by those propositions. As such he is 'within an inch' of saying that such propositions are hypothetical. '*They do not directly describe real existences*. They say what properties *would* follow, if something had certain other properties, and not that anything has them' (147). It follows, says Ryle, that geometry does not (as the Cartesians thought, and as Anderson would later suppose) directly describe the world; more importantly, nor do many philosophical statements have any ontological status: they do not describe transcendent entities, but merely say what

would follow about any ordinary object if it was of such and such a character (147).

Locke's 'quasi-chemical' account of the ultimate elements of our thoughts was surely wrong, Ryle says, and—let us note—wrong for reasons that should surely interest us today. For though we are tempted to be as 'factual' or 'scientific' as possible in giving accounts of action, thought, perception, memory, decision and the rest, we still 'know . . . in our bones that our theories about them, because couched in factual idioms echoing those of chemistry, mechanics, hydraulics, or physiology, have inevitably omitted something; and omitted something that is cardinal to their being actions, thoughts, perceptions, memories, or [decisions] at all' (161).

For once they are couched in these idioms, they are 'necessarily silent about the *purposive* nature of our doings, thinkings, perceiving, etc.' Ryle insists that it is essential to our actions, thinkings, perceivings and decisions, that they 'merit good, medium or bad marks' (161). In short, and to use a modern idiom, a 'naturalistic' account of the mental (on an unfortunate but now common understanding of 'natural') leaves out the normative dimension along which these doings can be assessed. Thinking, for example, is not a process: it is 'a consortium of competences and skills'. Thought is 'not something that just happens to us, like digestion. It is something that we do, and do well or badly, carefully or carelessly, expertly or amateurishly' (162).

Like Locke, Hume did not merely offer new answers to old questions: he transformed the questions of the time 'thus giving mankind a different air to breathe' (167). But again, in order to appreciate the differences Hume made, Ryle wants us first to 'unhamper' ourselves from his scheme of ideas as well as his 'pretended experimental method' so that we can appreciate his discrimination between different kinds of propositions and between different kinds of argumentative bases for them. It cannot be that the idea of causation between two 'objects' arises from mere familiarisation, for '[t]here are Rules for Judging of Causes and Effects, in virtue of which Rules we can be careful or careless'. Not so with mere familiarisation where there is no place for 'care or the lack of care, for talent or the absence of it'. The adjective 'scientific' is complementary and not merely descriptive. 'A Newton is not just ridden by more blind habits of expectation than the layman or the dog; he thinks more shrewdly and experiments more extensively and deliberately' (171).

One of Hume's contributions was to see 'what more is needed in the very act of trying to make do with a bare minimum'. Often, Ryle says, he saw what no one else had even considered. Hume is right that induction is indeed not deduction; he showed us their differences. But nor is induction mere familiarisation; again, Ryle says, it was Hume who showed their differences not by his 'pretended experimental method' but by the cogency of his arguments. We grant that neither a scientist such as Newton nor one who considers moral problems 'achieves, tries to achieve or should try to achieve the formal rigours of Euclidean demonstrations. But why limit the operations of Reason to deducing and demonstrating? Why sanctify just these highly specified operations? Why put the *a priori* on a pedestal?' (171).

Shortly after taking up his post in Oxford, Ryle taught himself German. Interested in Platonistic, because anti-psychologistic theories of meaning, he began reading Husserl, as well as Brentano, Meinong, Bolzano and Frege. The trend from the mid-1800s both in Germany and in England involved a recoil against the British School of Thought exemplified by Locke, Hume and J. S. Mill.

Husserl was, like Meinong, Frege, Bradley, Peirce, Moore and Russell battling against this heritage. One important difference, according to Ryle, which partly accounts for the gulf that still exists today between Continental and Anglo-Saxon philosophy, is the former's ignorance of the development of logical theory, for it is only by study of its massive developments, he says, that the main lines of Anglo-Saxon thinking can be fully understood (189). Despite this difference the intellectual pressures were the same:

> All were alike in revolt against the idea-psychology of Hume and Mill; all alike demanded the emancipation of logic from psychology; all alike found in the notion of meaning their escape-route from subjectivist theories of thinking; nearly all of them championed a Platonic theory of meanings, i.e., of concepts and propositions; all alike demarcated philosophy from natural science by allocating factual enquiries to the natural sciences and conceptual enquiries to philosophy; nearly all of them talked as if these conceptual enquiries of philosophy terminated in some super-inspections of some super-objects, as if conceptual enquiries were, after all, super-observational enquiries; all of them, however, in the actual practice of their conceptual enquiries necessarily diverged from

> the super-observations that their Platonising epistemology required. Husserl talked of intuiting Essences somewhat as Moore talked of inspecting concepts, and as Russell talked of acquaintanceship with universals, but of course it was by their intellectual wrestling, not by any intellectual intuitings, that they tackled their actual conceptual difficulties. (1971a, 187)

Like Meinong, Husserl held that universals or essences, as well as propositions, are objects of a higher order. We have knowledge by acquaintance of these universals; a knowledge that is analogous to our perceptual acquaintance with particulars such as my dog, Solutré and my cat, Vinzelles. According to Husserl, Ryle tells us, we can perceive or intuit essences in the same way we can particulars, except that the direct intuition of an essence requires that it be founded in the direct intuition of a particular instance of it; one which may be either real or imaginary. Philosophy is, accordingly, a sort of observational science like geography, but the objects which it inspects are semi-Platonic objects, out of space and time. These are what we grasp in conception and in judgement. It is this traditional view of concepts that was challenged by what Ryle calls the 'Cambridge transformation of the theory of concepts' (189).

When writing *Principles of Mathematics*, Russell, Ryle tells us, came to see that it is not enough to allocate a separate Platonic universal or Essence to every meaningful word. Russell was at the time bothered by 'syncategorematic', 'form' words or logical connectives such as 'and', 'not', 'or', etc. 'The phrase "Socrates and Plato" cannot be just a list of Socrates, Plato, and "and"-ness' since the conjunction of 'and-ness' with Socrates and Plato would require again the notion of *and*. ' "And" conjoins; it is not just a further notion to be conjoined' (190). These logical constants do not behave as 'Terms' or names: they don't stand for objects in the same way 'Fido' stands for Fido. The logical constants are not names of objects, as the Platonic view suggests, for they are not names. ' "All men are mortal" and "Some men are not mortal" say different things; but they are not about different subject-matters. The former is not about *Allness*, nor the latter about *Someness* and *Notness*' (*ibid*). They are nevertheless significant, so it remains to be shown how they contribute sense to whole sentences. Russell saw that in order to see what is meant by logical words it is necessary to examine their contribution to the entire statements in which they occur. The point holds not only for these logical words, but—

crucially—for any statement that is to be cashed out by these logical concepts. The same problem arises for live verbs. The contribution to the meaning of the sentence made by the word 'assassinated' in 'Brutus assassinated Caesar' is not captured by a list which conjoins Brutus, Assassination and Caesar. To examine the meaning of these too is to examine the contribution they make to entire statements in which they occur. The verb does nothing by itself; it is merely *auxiliary* to the saying of true or false things as wholes.

Common ground to different theories about the nature of concepts is that by 'concept' we refer to the meaning of a word or phrase irrespective of the language in which the word occurs. None the less when we wish to convey what is signified by a live verb, adjective, adverb and so on, Ryle reminds us that we do not talk of the concepts Assassinated, Is Wise or Is Equal To; we find it much more natural to use the corresponding abstract noun. But if Russell is right that it is not in the gift of abstract nouns such as Assassination, Wisdom or Equality to convey the organic unity of a truth or falsehood which is contributed by, say, the live verb, this would seem to rob philosophy of its subject-matter. Philosophy's task, according to the traditional view, is *supposed* to involve perceiving or intuiting the essences of the Platonic objects or universals that correspond to these nouns. If there is no corresponding object, what is the subject-matter of philosophy?

In writing *Principles of Mathematics*, Russell—confronted by logical paradoxes (such as a sentence that is true on the condition that it is false)—introduced a new weapon into philosophy: the distinction between sentences that express sense and nonsense as opposed to those which express truths and falsehoods. 'Russell used this weapon as a crowbar to dislodge only certain logical obstructions. In Wittgenstein's hand, it became the fulcrum for inverting the whole notion of meaning' (193).

It was Wittgenstein, Ryle tells us, who showed that the sense of a sentence is not a molecule to which the meanings of the words in it are atoms. Rather the meaning of the parts of a sentence are 'abstractible differences and similarities between the unitary sense of that sentence and the unitary senses of other sentences which have something but not everything in common with that given sentence' (192). Consider, by way of analogy, a human face, which 'is not a molecule of which its profile, its complexion and its expressions are the atoms; yet still we can discern

similarities and dissimilarities between different faces in respect of these features' (*ibid*).

It is only of such things as complex verbal expressions that we can ask whether they are significant or nonsense. We could not ask the same of mental processes or of Platonic entities (261). And this points to a major difference between science and philosophy: 'The sciences aim at saying what is true about the world; philosophy aims at disclosing only the logic of what can be truly or even falsely said about the world. This is why philosophy is not a sister science or a parent science; that its business is not to add to the number of scientific statements, but to disclose their logic' (261–2).

Concepts such as Virtue, Hope, Equality, Reason, Meaning or Thought are abstractions from propositions in which their correlative live verbs, adjectives and adverbs perform their roles. These concepts, like formal ones, embody the logical structures of the propositions from which they are abstracted. We discern what features one assertion has or lacks in relation to another. Sentences are the units of meaning, not the words in which they are composed; for we may find that a word that would fit, grammatically speaking, into a sentence (because, say, both are verbs) would none the less render it nonsense. 'A concept is, so to speak, already shaped for the assertions, questions, commands, etc. into which it will fit; and shaped, therefore, not to go into other grammatically allowable vacancies' (193). We cannot, for example, replace the verb 'find' with the verb 'search' in 'He began to search the room but was interrupted by the dinner bell.'

Brentano had been right that the associationist psychologies of Hume and Mill were radically false; he put into question the presupposition that mental life is a mere avalanche of atomic ideas which are in no sense *of* anything. Instead he argued that we can know *a priori* that any case of consciousness of any form must be a case of consciousness *of* something and that there are irreducibly different sorts of mental functioning, so that while ideas may be necessary ingredients in judging and wanting, judging and wanting cannot be analysed without residue into ideas or complexes of them. He was also correct in making a distinction between empirical psychology and an enquiry into the concepts that underlie it. The former is inductive, experimental and statistical, the conclusions of which are probable generalisations. The latter is *a priori*. Instead of asking what it is that makes someone remember, choose, wish or infer something, the

conceptual enquiry is concerned instead with what it is to be a case of remembering, inferring, wishing or choosing. The conceptual enquiry 'asks what ultimate forms of mental functioning there are to be exemplified in particular instances' (175). Conceptual enquiries into 'the compositions and connections of the concept under which fall the manifold manifestations of mental life' should come before the factual enquiries of the empirical sciences.

Husserl, though also using 'phenomenology' like his teacher Brentano to denote the *a priori* analysis of the root types of mental functioning, also believed this to be an enquiry which could become a rigorous science. But no part of philosophy, Ryle insists, is properly called a 'science'. Ryle tells us that, in spite of his early reviews of Husserl and Heidegger, there was not much truth in the suggestion that he had in his youth been a disciple of Husserl's phenomenology; his interest was rather in his anti-psychologistic theory of meaning/nonsense which, he came to realise, 'owed nothing to his posterior Phenomenology and bequeathed too little to it' (1970, 9). Had Husserl's lessons consisted in his positive analyses of psychological concepts, they would have been worth a good deal of value (231). But in so far as Phenomenology speaks of intuiting essences, or worse, of building a new system (deaf to the problems of others) with its own jargon and devotes itself to the 'profitless tasks of epoch-making results and of demarcating the sub-faculties' of a new pretended science, Phenomenology is a 'sham' (229) and a 'bore' (231).

Though Moore and Russell swallowed whole Plato's doctrine about the nature of concepts, they showed, by contrast, no inclination to assimilate philosophical to scientific enquiries and thus no inclination to 'puff philosophy up into the Science of sciences' (188). Nor did their acceptance of Plato's doctrine, and therefore their description of the nature of philosophical enquiry, interfere much with how they went about their philosophical business, for what these philosophers did in their arguments was another matter. Moore, like Socrates, was 'apt to suppose that his analytic operations would terminate, if ever successful, in some analyses or definitions of composite concepts' (280). But what Moore taught us, instead, was how to assess the forces of expressions on which philosophical issues hinge: he imported into the philosophical arguments the form-discriminations that had newly been elaborated *in abstracto* by the logicians.

Moore himself was not one to turn prose-arguments into 'sentence skeletons'; he was not an 'algebraizer' in philosophy. The logician's

inference-patterns were employed by Moore as his 'stencils', not as his 'fabric'. But Moore demonstrated a major part of the philosopher's task:

> to select and disencumber just these natural and familiar expressions which are competent to carry precisely determined premise-burthens and conclusion-burthens. Theory-tangles can and must be resolved by rendering completely unequivocal and completely specific the different questions to which answers are required, and by demarcating exactly what propositions are and are not entailed by all the suggested answers to them. To find the implications and compatibilities of one proposition is to distinguish its force from the forces of the adjacent propositions which might be confused with it or be wrongly treated as part and parcel of it. The philosopher has not to discard his native dictions, but only to take all possible pains to unclutter their inference-edges. (279–80)

This does indeed present a different view of the philosopher's role. Ryle's conceptual cartography, exemplified both in his individual essays and in a sustained way in *The Concept of Mind*, shows that the task is 'never to investigate the *modi operandi* just of one concept by itself';

> The task is to investigate the *modi operandi* of all the threads of a spider's web of inter-working concepts. A problem about, say, the notion of *imagining* is *ipso facto* a problem about the notions of *perceiving, remembering, thinking, pretending, knowing, inventing, experimenting*, and so on indefinitely. To fix the position of one concept is to fix its position *vis-à-vis* lots of others. Conceptual questions are inter-conceptual questions; if one concept is out of focus, all its associates are also out of focus. (196)

Ryle's method has some things in common with Wittgenstein's, who would proceed, Ryle suggests, as a 'tea-taster' would: not by lumping his samples into two or three comprehensive types, but rather 'by savouring each sample and trying to place it next door to its closest neighbours, and this not in respect of just one discriminable quality but along the lengths of various lines of qualities' (265).

Indeed, the method is similar to Jane Austen's who, in her books, was a 'moral' wine-taster: her technique is the 'method of a vintner'. Rather than looking at characters in black and white terms, as good or bad, selfish or generous, she

> . . . pin-points the exact quality of character in which she is interested, and the exact degree of that quality, by matching it against the same quality in different degrees, against simulations of that quality, against deficiencies of it, and against qualities which, though different, are brothers or cousins of that selected quality. . . . To discriminate the individual taste of any one character is to discriminate by comparison the individual taste of every other character. (288)

Ryle is most impatient with philosophers who ignored what he deemed advances in philosophical logic; not only of those ignorant, in particular, of the insight that the logical form of an expression does not follow its grammatical form, but of those who accept too rigidly the formal apparatus of logicians for understanding and elucidating philosophically important expressions. John Anderson, in particular, is 'oblivious of any logical differences save the difference between qualities and relations. His regular touchstone is the question "Quality or Relation?" Is knowing (or willing) a quality? No; so it must be a relation. Is good a relation? No; so it must be a quality' (249).

Ryle accuses Carnap, in his review of 'Meaning and Necessity', of being guilty of the excesses of Husserl and even Meinong in making 'alarming requisitions upon philosophy's stock of extra-linguistic entities'. Ryle is wary of the expository importance of Carnap's encoded formulae which seem to him to have a merely ritual value: they fail to 'function as a sieve against vagueness, ambiguity or sheer confusion', nor are they used 'for the abbreviation or formalization of proofs.' Indeed, '[c]alculi without calculations seem to be gratuitous algebra. Nor, where explicitness is the desideratum, is shorthand a good substitute' (234).

A problem arises whenever we feel obliged to use the 'sentence-skeletons' that formal logic provides as the 'aperture' in which to fit meaningful sayings. For

> [w]hat we can never say is that we have now, at last, been provided by logic (i.e. logicians) with all the cupboards and pigeon-holes that can ever be needed. Indeed, my own view is that though recent logic (i.e. logicians) has been relatively lavish in providing dockets for propositional difference, it has not yet provided nearly enough to cover the varieties of statements and arguments employed in science, law and ordinary life. (252–3)

The philosopher who has learned from the massive developments in logical theory will presumably no longer force all expressions into the favoured few patterns of the logic of mathematics. In Ryle's hands, as in the later Wittgenstein's,

> [w]ith this goes a revolt against moulds of any sorts. The rubrics of logical systems and the abstract terms of philosophical schools are like the shoes of Chinese ladies, which deformed their feet and prevented them from walking on them. Philosophical elucidation is still inspection of expressions, but it is no longer inspection through the slots of a logician's stencil or through the prisms of a scholastic classification-system. (264)

But nor is the proper task of philosophy to be identified with the definitional equivalence that Moore characterised himself as seeking. Ryle's conceptual analysis is conceptual cartography: a kind of elucidation that does not view its task as the search for essential properties of that which the concept is taken to signify (since it is not taken to signify anything) and nor for conditions necessary and sufficient for the concepts' application; for, as Ryle makes clear in his second volume of papers, the inflections of meaning and elasticities of significance enjoyed by most of our expressions will ensure that there are rarely if ever such context-free conditions.

Why study philosophers of the past? Not only for scholarship; nor, certainly, for their compendium of 'isms'. Today, philosophers primarily interested in the contemporary scene—whether in normative or meta-ethics; philosophy of mind; the cognitive sciences; epistemology; metaphysics; or aesthetics—could do well to identify the presuppositions of the current trends, the source of these presuppositions, and the various battles they have won, but perhaps ought not to have won, to attain the positions they presently enjoy.

Although perhaps true at the time he was writing, Ryle would no longer be able to say, for example, that '[n]ext to nothing of Locke's terminology or of his theory of thought and perception survives in modern psychology' (156). Indeed, in private correspondence a few months before his death, Ryle, who would not live long enough to see the influence of the book, asks Dennett about some of the cardinal ideas in Fodor's *The Language of Thought*:

> . . . what on earth [are] these 'representations' supposed to be and do [?] . . Do *I* have them? Do I need them? Is their extension identical with that of Locke's less pompous 'ideas'? . . . What does 'internal' mean? Locke's usual 'inner'? . . . it seems that Fodor beats Locke in the intricacy of his 'wires-and-pulleys', when what was chiefly wrong with Locke was the (intermittent) intricacy of his 'wires-and-pulleys'! (2002)

Ryle's apprehension of the growing influence of Anderson and Carnap was prescient: he could not have been expected to imagine the lasting influence they would cast over Australian materialists and their successors in the first instance, and over Quine, Davidson and their followers in America, in the second. The fact is that most Anglo-Saxon philosophy still tends to look at significant statements through the sadly impoverished 'aperture' of formal logic and tends to assume that if it does not fit, it cannot be meaningfully said. Or, like the ladies' feet in Chinese slippers, significant expressions are squeezed until so deformed we can no longer use them to perform the function for which they were intended and would continue to do, if left alone. What Ryle was not to know—probably unthinkable in the British philosophical climate of the '40s, '50s and early '60s—was that outside a burgeoning but inwardly focused 'scholarship' there would exist in the late twentieth and early twenty-first century an almost total neglect of Wittgenstein's teaching in 'contemporary' philosophy of mind, philosophy of language and the rest of philosophy that borrows freely from the latest 'theories' emanating from these major sub-disciplines and their offshoots.

To identify the presuppositions of our discourse, the source of these presuppositions, and the various battles they have won but perhaps ought not to have won, are good reasons for reading Ryle. He has much to teach us about normativity and naturalism, about the nature and role of rules, including those of logical inference, practical and moral reasoning, as well, most importantly, about the proper task and subject-matter of philosophy and of its discontinuity with the sciences. Much of the land from the battles he thought won has been invaded by the opposition; it is now perhaps time to reclaim it by staging new battles with help from the old weapons. I hope that others find, as I have, that he cannot only talk to us 'across the ages' about perplexities and puzzles that bother us still, but that he was in fact a pioneer, often behind but sometimes ahead of Wittgenstein, in taking certain crucial steps. I hope others find, as I have,

that he talks to them certainly not as a 'toddler', not perhaps as a 'colleague', but as (rare thing for a philosopher!) a beautiful and thus accessible writer, and as a patient, demanding and very, very witty teacher.

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Introduction

In this volume are resurrected most of the thoughts that I had, by 1968, written and published about individual thinkers.

One other member of this genre, namely 'Mr. Collingwood and the Ontological Argument' which should have appeared in this volume, in fact, owing to muddled instructions to the Printers, appears as No. 7 in the second volume of these Collected Papers.

Several lesser things, such as reviews and obituary notices, which are not revived here, are listed in the bibliography at the end of *Ryle*, in the series *Modern Studies in Philosophy*, published by Doubleday & Co., Inc., N. Y., 1970, and by Macmillan, London, 1971.

To these may be added some pieces written by me but published too late for inclusion here, namely: (1) 'G. E. Moore's "The Nature of Judgement" ' (11 pp.) in *G. E. Moore: Essays in Retrospect*. Ed. Alice Ambrose and Morris Lazerowitz, Muirhead Library of Philosophy, George Allen and Unwin, 1968.

(2) A lecture on Alexius Meinong delivered to the Meinong-Colloquium at the University of Graz in October, 1970. A collection of the lectures given at this Colloquium, edited by Prof. R. Haller, should be published soon.

(3) An obituary appreciation of Bertrand Russell in *The Listener*, 12th of February, 1970.

(4) An obituary appreciation of Bertrand Russell delivered to the

Aristotelian Society, on 7th of December, 1970, will appear in the *Proceedings of the Aristotelian Society*, 1970–1 (8 pp.).

(5) 'Autobiographical' (15 pp.), an introductory contribution to *Ryle* (mentioned above).

(6) Interview with Bryan Magee in the Series 'Conversations with Philosophers', published in *The Listener*, 21st of January, 1971. Publication in book form is planned for the whole Series of 'Conversations with Philosophers'.

Not all, but most of these Critical Essays issue from a common exegetic policy, which I shall shortly expound.

(1) One exception is No. 4 'The "Timaeus Locrus" '. This was written as a 'Who Dun It'. It attempts to credit the young Aristotle with a composition which scholars have relegated to a much later age. If this attempt were successful, it would indeed reinforce certain hypotheses about the careers and the philosophical thinkings of both Plato and Aristotle. But the question whether the detective-work was a failure or a success could not be determined by consideration of the dividends which would accrue if it were a success.

(2) Nos. 5 and 6 on Dialectic aimed to provide a cultural, pedagogic and tool-shop background for the elucidation of Plato's and of Aristotle's thought, without providing much of that elucidation itself. Incidentally, the former piece, apart from its wind-up and appendix, reappeared, with trivial differences, as Chapter IV of my book *Plato's Progress*, so its revival in this volume is probably gratuitous.

(3) Three of the Critical Essays are undisguisedly—and unrepentantly—polemical, namely (*a*) (from Volume II) No. 7 'Mr. Collingwood and the Ontological Argument with its rider, No. 9, 'Back to the Ontological Argument'; (*b*) No. 15, 'Logic and Professor Anderson'; and (*c*) No. 14, 'Discussion of Rudolf Carnap: Meaning and Necessity'.

(*a*) The vehemence of my onslaught on Collingwood came partly from a local patriotism. We Oxford philosophers were, I thought, by the mid-thirties, sufficiently abreast of the century's advances in logic and in meta-philosophical theory to have the right to dissociate ourselves from the Ontological Argument that Collingwood had recently exhumed. We were not *ex officio* dedicated to this lost cause.

(*b*) Professor Passmore invited me to discuss the philosophical contributions of Professor John Anderson, of Sydney University. As he had reserved his publication for an Antipodean philosophical journal, he had

not got any currency for his thoughts in the northern hemisphere. Nor had he embroiled himself in discussions of issues stemming from the logical doctrines of Frege and Russell or from the meta-philosophical teaching of either Wittgenstein or the Logical Positivists.

The electrifying younger generation of antipodean philosophers owed much to Anderson's unromantic and uncompromising teaching. But, I thought, by 1950 it needed to hear other voices than 'His Master's Voice'. In Sydney, especially, discipleship was having the same sterilising effect that another discipleship was visibly having in Cambridge. I wanted to provoke, even to infuriate, Anderson into open debate; but still more did I want to chivvy Australian philosophers-in-the-making into sorting out for themselves what in Anderson's thinking was in motion from what was stuck.

(*c*) The heat in my review of Carnap's *Meaning and Necessity* had a different origin. Carnap was by now the *doyen* of the old Vienna Circle as well as a devoted adherent of Frege. He was in the vanguard of those who wished to rigorise philosophy by formalising its theses and its arguments in apparatus like that of modern Mathematical Logic. The authoritative promise of a technology and, therewith, of a scientific standing for philosophy was already tempting some of us to shirk our impasses for the firm pavement of algebra. Yet, as I harshly objected, Carnap's own handling of the crucial notions of Sense and Nonsense was, in large measure, a relapse into muddles of pre-Wittgenstein, pre-Russell and even pre-Frege sorts. His scientific-seeming apparatus had not helped to solve, but merely to screen the cruces.

Through nearly all of the other Critical Essays, and also through these three polemics, there runs a common strategy, or, it may be, a common *idée fixe*. From the time of the *Tractatus* the question had been a live and insistent one:—What sort of an enquiry is philosophy as distinct from Natural Science, Mental Science, Mathematics, Theology and Formal Logic? What, if any, is its proprietary subject-matter? What, if any, is its peculiar method?

By the early 1930's, if not the late 1920's, I had shaken off the central article of faith of the historians of philosophy, that philosophers, like theologians, are campaigners for and against 'isms'. The 'School of Thought' that flourishes a philosopher's name is the creation of his loyal and therefore inferior pupils. I had shaken off, too, the modern notion that (say) Kant's three *Critiques* are (like a set of *Minds*) a random

assortment of 'analyses' of detachable little tangles. A Kant, a Hume or an Aristotle seeks to eradicate *one* briar-patch—which necessarily consists of a multiplicity of briars. To elucidate the thoughts of a philosopher we need to find the answer not only to the question 'What were his intellectual worries?' but, before that question and after that question, the answer to the question 'What was his overriding Worry?'

Naturally the fact that this is the question to ask does not ensure success for the attempts to answer it. There are two pieces here about John Locke, of which the second, I now think, gets nearer to the right answer than did the first. I think, too, that my latest critical examination of Phenomenology yields a more radical diagnosis than did my earlier examinations.

None the less, it needs to be realized and remembered that my exegeses are exercises of a fairly definite theory about the nature of philosophy, one according to which it is always proper to look, whether in Plato or in Locke or in Mill, for dialectical moves of the same sorts as those which we, in the same quandary, would be tempted or proud to make.

It will be fairly objected that in expositions that are governed by this, or by any other, controlling theory of philosophy, the author must necessarily have an axe to grind. The risk is a real one. But the alternative policy of expounding a thinker's thoughts without reference to his puzzles and difficulties is what has given us our standard histories of philosophy, and that is calamity itself, and not the mere risk of it.

GILBERT RYLE
March, 1971

1

PLATO'S 'PARMENIDES'

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I

The following observations are arguments in favour of a certain interpretation of Plato's dialogue, the *Parmenides*. According to this interpretation the dialogue is philosophically serious, in the sense that its author thought that its arguments were valid and that its problem was one of philosophical importance. Further, it will be maintained that he was right on the latter point and predominantly right on the former point. The problem is important and most of the arguments are valid.

It will be suggested that the obvious obscurity of the dialogue is due to a very natural cause, namely that Plato could not with the logical apparatus accessible to him propound in set terms what is the general conclusion or even the main drift of the dialogue. For the construction of the required logical apparatus could not be taken in hand until after the inevitability of the sorts of antinomies which the dialogue exhibits had been realised.

If this interpretation is correct, or even if some interpretation of a kindred type is correct, then the interpretation suggested by Burnet and Professor A. E. Taylor is wrong. My main object is to show what the true interpretation is, but a brief résumé of other reasons for rejecting the Burnet–Taylor theory may not be out of place.

Burnet and Professor Taylor declare the dialogue, or the dialectical part

of it, to be a joke. Plato's object was to ridicule certain philosophers or philosophasters by parody. None of its arguments are valid or thought by Plato to be so. And its pretended problem or set of problems is a sham one. The butts of the ridicule are either the philosophers of the Eleatic school or those of the school of Megara or both. They merited such ridicule because the logic employed by them was vexatious and fallacious. They had exercised this corrupt logic against certain doctrines which Plato accepted; consequently Plato in this dialogue is paying them back in their own coin.

The main objection to such a theory is of course that the arguments of the dialogue are either valid, or else plausible enough for their author to have taken them to be so. Other objections are as follows. If the intended butts of the alleged mockery were Parmenides and Zeno, it is hard to explain why in the two adjacent dialogues, the *Theaetetus* and the *Sophist*, Plato goes out of his way to express his admiration for the former; or why the Zenonian method of argument by antinomy is declared by Professor Taylor himself [1] (I think correctly) to be that recommended to philosophers by Plato in the *Republic* as well as in the *Sophist*.

Moreover, Professor Taylor recognises not only that Plato thought that the Zenonian pattern of ratiocination was valid, but also that it is valid. He recognises, too, that it is important, since by means of it Zeno had shown that there were hidden absurdities in the premisses of Pythagorean mathematics—which absurdities were acknowledged and partly remedied by Plato's own circle.

In the *Sophist* and the *Politicus* the leader of the discussion is described as an Eleatic Stranger, and his arguments are notoriously intended to be taken seriously. And the Megarian philosopher Euclides is introduced as a sympathetic character at the opening of the *Theaetetus*. The Eleatic Stranger who conducts the argument of the *Sophist* is expressly praised as a genuine philosopher and not a mere tripper-up of unsubtle persons.

So slight a part does Socrates play in the *Parmenides*, *Sophist* and *Politicus*, and so slight also is the positive role given to any known Socratic theories in those dialogues or in the *Theaetetus*, that the natural inference would surely be that Plato had discovered that certain important philosophic truths or methods were to be credited not to Socrates but to the Eleatics. Zeno is the teacher now and not Socrates.

[1] In *Plato: The Man and his Work*, p. 290.

Doubtless there were (long after the time of Parmenides) Megarian thinkers who loved to lay logical traps and pose logical riddles. Maybe some of them prosecuted this search from motives of mischievousness, though generally the collectors of fallacies and puzzles in logic (like Lewis Carroll) do so from the more serious motive of desiring to discover the rules of logic which will provide the rebuttal of the fallacies and the solution of the riddles. But the theme of the *Parmenides* has (unlike Aristotle's *Topics* and *De Sophisticis Elenchis*) no obvious connection with any such posers. Nor could Plato have preserved any historic unities and represented Parmenides as the victim of the posers garnered by this yet unborn band of formal logicians.

But in any case the supposed joke would have been a very poor one. For Parmenides and his followers are supposed to be rendered a laughing-stock by the ascription to Parmenides' own lips of arguments which he never used. He is made to talk nonsense by Plato. Yet this joke would only have succeeded—and then how lamely!—if the words put into his mouth were almost parallel to words which he was known to have uttered. The comicality of the former would be transferred to the latter by the closeness of their analogies. But Parmenides is not known to have produced either fallacious or valid specimens of Zenonian dialectic, and Zeno is known to have produced valid specimens of it. Was Plato perhaps being silly enough to poke fun at a valid method of ratiocination, mistakenly thinking it to be fallacious? This would have made only Plato ridiculous.

Moreover, Parmenides in the dialogue, so far from being an innocent victim, unwittingly entrammelled in an absurd argument, himself draws attention to the untenability of certain of the conclusions of the dialectic. It is he who brings out and draws attention to the contradictions which he has deduced. He underlines the antinomies here as vigorously as Zeno underlined the antinomies which he disclosed as resident in the Pythagorean premisses. He is a poor butt who is both the author of a joke and the commentator upon its absurdities.

It is small wonder that it took two and a half millennia before anyone was found to give vent even to a laboured chuckle at the supposed fooling. Further, in the *Sophist*, which is accepted as a sober dialogue, a certain stretch of the dialectic of the *Parmenides* is echoed as a constituent of the argument. Was it conscious sophistry in the *Parmenides* and serious reasoning in the *Sophist*?

Later on we shall see that the central crux of the second part of the

Parmenides was recognised by Aristotle to have been a serious philosophical puzzle, and one which he thinks he can, with the aid of his logical apparatus, resolve. This will also be evidence that this issue was not a sham issue and the intricacies of the argument not gratuitously manufactured.

The one piece of internal evidence which seems to be in favour of Professor Taylor's theory is the passage where Parmenides prefaces his antinomian operations with the expression 'since we have committed ourselves to the laborious sport'. I think that παιδία is here 'play taken as exercise or practice' rather than 'fun' in the sense of 'jest' or 'ridicule'. But even if it were taken in the latter sense, the whole alleged joke would be killed. Parmenides could not be the unwitting butt of ridicule while himself recognising that he was being ridiculed. Don Quixote does not say 'Let me pretend for fun to be a gallant knight'. He is a figure of fun because he takes his acts and attitudes seriously.

Finally, the first part of the dialogue, where Socrates is being cross-questioned, is taken by Professor Taylor to be serious. He holds that the arguments which silence Socrates are not really conclusive (in which point I think that he is mainly wrong), but that the discussion is one which has a genuine philosophical problem and moves by a method which is meant to be taken seriously. It is therefore only the second and longer part of the dialogue which has to be construed as a parody. Yet so far from there being any detectable relaxation here in the sobriety of the dialogue, it is generally felt that liveliness and dramatic qualities, not to speak of humour, vanish from the very beginning of this second part.

It reads as if it were sober, professional, systematic, arid and in conformity with set rules—and it reads so, I suggest, because it is so. Moreover, there is a clear connection between the two parts. In the first part Socrates several times over proclaims a challenge, and Parmenides more than once declares that he takes it up. What the challenge is, we shall see later. But if in a serious part of the dialogue a task is set, and if in the second part the task is performed, it is hard to reject the inference that the second part of the dialogue is also serious.

It is now time to give an analysis and interpretation of the dialogue based upon the assumption that Plato thought that it dealt with a real problem and that its arguments were valid. I shall begin with a discussion of the first part of the dialogue, where Parmenides is in discussion with the young Socrates.

Socrates has been listening to the reading of an argument written by

Zeno, in which Zeno had been controverting certain opponents of the Monism of Parmenides by demonstrating that their position entailed that one and the same subject had incompatible predicates. Namely, they maintained the existence of a plurality (no matter of what), and Zeno argues that the members of a plurality must exemplify both similarity and dissimilarity; and as these are opposite attributes, it is impossible that there should exist a plurality.

Socrates then urges that Zeno's argument is answerable. For according to the theory of Forms, since Forms and the instances of them are distinguishable, it is possible for there to exist things which are instances of several Forms at once and even, in a certain fashion, instances of opposite Forms at the same time. Things may exemplify similarity and dissimilarity at the same time, or unity and plurality, as a person is one person but a plurality of limbs and bodily parts. It is to be noticed that Socrates does not try to explode the apparent contradictions by distinguishing relational from other predicates, a distinction of which Plato is well aware in other dialogues. He might have shown that there is no contradiction in saying that something is bigger than one thing while smaller than another, or similar to one thing and dissimilar to another, while there would be a contradiction in describing a thing as having and not having a given quality at the same time. Instead the young Socrates maintains that the apparent contradictions vanish or lose their menace when it is seen that Forms and their instances are to be distinguished from one another and that a particular may, without absurdity, be an instance of several Forms and even opposing Forms at the same time.

However, Socrates repeats four times between 129b and 130a that he would be gravely perturbed if it were shown that not the instances of Forms but Forms themselves underwent opposite predicates. And we shall see that in the second part of the dialogue Parmenides takes up just this challenge.

Meanwhile, however, Socrates' theory of Forms has to undergo an examination. And as Socrates has proposed to upset Zeno's assertion that the existence of a plurality entails that the members of such a plurality would have opposite predicates, by referring to the relation between Forms and the instances of Forms, it is to this alleged relation that chief attention is paid.

Socrates accepts as specimens of Forms similarity, unity, plurality, magnitude, justice, beauty and goodness. He boggles at the suggestion

that there are also Forms of hair-ness, mud-ness and dirt-ness, and is uneasy even about Forms of natural kinds such as men, fire and water would be instances of. He is advised not to be squeamish, but the general theoretical question is at once embarked on: What sort of a relation is it which holds between instances and what they are instances of? To put it roughly, a Form is taken to be something answering to any general predicate, noun, verb or adjective, in such a way that any significant abstract noun will be the proper name of such a something. And it is because there exist such somethings that many ordinary objects can be characterised by a common predicate. To ascribe a predicate to something is to assert that this something stands in some relation to a Form. So if a thing is an instance of something, there exist two objects, the instance and that of which it is an instance. And there is the special relation between them which constitutes the former an instance of the latter. For example, my body, being one body, exemplifies or is an instance of unity. This, according to the theory, entails that there exist two things, namely my body and unity, and there obtains too the relation answering to the word 'exemplifies' or the phrase 'is an instance of'. We might say, for nutshell effect, that the theory of Forms is the theory that abstract nouns are proper names or that being-an-instance-of is a proper relation.

What sort of a relation is this relation of exemplification? Socrates essays different answers to this question, all of which collapse. We shall see later that any answer must collapse, since the question itself is logically vicious, which entails that the theory of Forms, in its present shape, is logically vicious.

Socrates first suggests that the relation is that of participation, and Parmenides proceeds to examine the concept expressed by this word taken in its natural and literal sense. To participate in something is to possess or occupy a part of something. You and I participate in a cake if you take half of it and I take the other half. So if to be an instance of something is to participate in it, it must be to possess or occupy a fragment. If a thousand objects exemplify circularity by being circular, then on this literal rendering of 'participation' each must somehow have one-thousandth of circularity. Now it already sounds absurd to speak of fractions of attributes, such as slices of yellowness or quotas of similarity. But Parmenides does better than rely upon our nose for the ridiculous; he explores a set of cases where the notion generates flat contradictions. He operates, namely, upon predicates of magnitude and relative magnitude. For example, the

existence of many large things would imply that each possessed a very small fraction of largeness, a fraction very much smaller than that of which it was a fraction. And things equal in size will possess fragments of equality which are much smaller than and so not equal to equality. Smallness will vastly exceed in dimensions the fractions of itself that render their possessors small.

Our reactions to such reasoning naturally take two forms. We object at once that of course concepts like magnitude, equality, smallness and the rest do not themselves have magnitudes. Bigness is not bigger or smaller than anything else, nor equal in size to anything else. It is nonsense to ascribe predicates of size to concepts of size. Attributes such as quantitative dimensions are not instances of themselves. Indeed, like Professor Taylor and Mr Hardie, we are ready to declare with confidence that no 'universal', i.e. no quality, relation, magnitude, state, etc., can be one of its own instances. Circularity is not circular nor is proximity adjacent. Nor even are such concepts capable of being instances of other concepts of the same family as themselves. It is nonsense to describe circularity as circular *or* of any other shape; and it is nonsense to describe redness as of *any* colour, or equality as of *any* dimensions. We are right to make such objections. The theory of Forms is logically vicious if it implies that all or some universals are instances of themselves or of other universals of the same family with themselves. And Plato had, apparently, once thought that beauty was beautiful and goodness was good; maybe he had thought that circularity, and circularity alone, was perfectly circular.

But that such descriptions of qualities, magnitudes, relations, etc., are illegitimate has to be shown and not merely felt. Plato is either showing it or on the way to showing it in this part of the dialogue. The very next stage in the argument proves that no universal can be an instance of itself.

Another objection that we feel disposed to make is that Plato is treating such concepts as smallness, equality, similarity and otherness as if they were qualities, instead of seeing that they are relations. To be small is simply to be smaller than something, or than most things or than some standard thing. But we are here trading upon the distinction, worked out in part by Aristotle, between universals of different sorts. Yellow is a universal in the category of quality, equality is one in the category of relation. But how do we establish such categorial differences? Not on the authority of Aristotle or by native instinct or whim, but by exhibiting the contradictions or other absurdities which result from treating universals as

all of one type. The theory of Forms was logically vicious in so far as it did, unwittingly, treat all universals as if they were of one type. Plato is proving the need for a distinction between the different types of universals.

In 132a Parmenides briefly shows that if instances of largeness and that of which they are instances are alike considered and compared in respect of largeness, an infinite regress is at once set on foot. If largeness is a large something, it must be an instance of largeness Number 2, and this will be an instance of largeness Number 3 and so on for ever. So 'largeness' will not be the name of one Form but of an endless series of Forms. It is only our generalisation of this to say that it is logically vicious to treat any universal as one of its own instances. We shall see that interesting consequences follow from this.

Socrates now toys for a moment, still within the confines of the participation theory, with the conceptualist theory that Forms are thoughts or notions, so that the relation between instances and that of which they are instances either is or is a species of the relation between our thinkings and what we think about. To this Parmenides gives two different but both fatal objections. The thinking of that of which instances are instances must be the thought of something, and that which is the object of such thinking must be real or exist. And this will be a Form, the existence of which will not be the occurrence of that thinking but presupposed by it as its object. Moreover, if universals were bits of thinking, their instances (on the literal participation theory) will be fragments of those bits. So everything whatsoever will be a piece of thinking, unless we are ready to swallow the alternative of saying that there exist thoughts which are never thought. The latter of these objections would not hold necessarily, if some account of 'being-an-instance-of' other than the literal participation account were given.

Socrates now abandons the literal participation theory and suggests in its place the similarity theory. For one thing to be an instance of a Form is for it to copy or resemble it in one or more respects; or if there exist several instances of a Form they all copy or resemble it, and from this resemblance is derived their resemblance to one another. Historically it is probable that this theory had seemed the obvious theory to hold when attention was being focused upon the concepts of mathematics and especially of geometry. The squares and circles which we draw are not exactly square or circular. They are nearly but not quite good copies of ideal or perfect squares and circles, though these never exist in nature. At

this stage, probably, philosophers failed to distinguish ideal circles from circularity and ideal squares from squareness. It was only later seen that they are or would be instances of those attributes and so are or would be particulars even though not ones existing in nature.

Parmenides swiftly refutes this theory. Resemblance is a symmetrical relation. If A is similar to B in a certain respect, B is similar to A in that respect. (We must be careful not to say that 'being a copy of' signifies a symmetrical relation, since in the notion of being a copy there is, over and above the notion of resemblance, the quite different notion of origination. A portrait is a copy of a face, but a face is not a copy of a portrait.)

But for two things to resemble each other in a certain respect, both must have at least one common attribute, or both must be instances of at least one common universal. So if a Form and its instances are similar, both must be instances of at least one higher Form. And if their being instances of it entails, as according to the theory it must entail, that they and it have some point of similarity, then all must be instances of a still higher Form, and so on *ad infinitum*. So, even if there is some sense in which a drawn circle is rather like an ideal circle, there is no sense in which either is similar to circularity.

Socrates is now bankrupt of any answer to the question, What sort of a relation is being-an-instance-of? But the debate is so far inconclusive that the fact that Socrates cannot answer the question does not imply that there is no answer. Other 'friends of the Forms' might assimilate the relation to some other as yet unexamined familiar relation. I propose here to go beyond my text and argue that there can be no answer to the question, since the question itself is illegitimate.

To show this, it is convenient to consider Cook Wilson's answer to the question. His view is that the relation of being-an-instance-of is a relation *sui generis* capable of no analysis and in need of none. It is a mistake in principle to look for some familiar relation which holds between one particular and another, and to try to show that the relation of being-an-instance-of is a case or species of that. None the less, there is no mystery about the relation of being-an-instance-of; it is one with which any ability to think presupposes familiarity. Indeed no ordinary relation or quality or state could be familiar to us without our being familiar with this unique relation.

Let us, for brevity, call this alleged relation, as Cook Wilson does not, 'exemplification' and, ignoring the question whether or not it is assimilable

to any other known relation, consider whether the assumption that there exists such a relation contains any logical vice. On this view a thing-quality proposition will assert that a thing is in this relation of exemplifying to the quality; and a relational proposition will assert that the two or more terms jointly exemplify the relation.

Thus every thing-quality proposition will be a relational proposition, and every ordinary relational proposition will be a doubly relational proposition, since it will be asserting that the relation of exemplification holds between the terms and the special relation, say that of being-neighbour-to.

Now if one thing is in a certain relation to another, the latter will be in some, not necessarily the same, relation to the former. If 'this is green' is more fully expressed by 'this exemplifies greenness', there will be another relational proposition of the form 'greenness is exemplified in (or inheres in) this'. Forms will be the subjects of relational propositions: i.e. there will be significant and irreducible relational sentences each with an abstract noun denoting at least one of the terms in the relational proposition.

Now what of the alleged relation itself, which we are calling 'exemplification'? Is this a Form or an instance of a Form? Take the two propositions 'this is square' and 'that is circular'. We have here two different cases of something exemplifying something else. We have two different instances of the relation of being-an-instance-of. What is the relation between them and that of which they are instances? It will have to be exemplification Number 2. The exemplification of P by S will be an instance of exemplification, and its being in that relation to exemplification will be an instance of a second-order exemplification, and that of a third, and so on *ad infinitum*.

(This is not the same regress, though reminiscent of it, as that which Bradley thought he had found in the necessity of there always existing a further relation to relate any relation to its terms.)

This conclusion is impossible. So there is no such relation as being-an-instance-of. 'This is green' is not a relational proposition, and 'this is bigger than that' only mentions one relation, that of being-bigger-than.

There are no genuine simple relational propositions having for their terms what is denoted by abstract nouns. Forms are not terms in relational propositions with their instances acting as the other terms. And if (what is a further point which is not here being argued) Forms are also incapable

of having qualities or dimensions or states or places or dates, etc., it follows (what is true) that Forms cannot be the subjects of any simple propositions, affirmative or negative, attributive or relational.

Now when we say such things as that there is no relation between greenness or circularity and its instances, we seem to be saying that there exists an intolerable remoteness or alienation between universals and particulars. It sounds like saying that two men have no dealings with each other, or that two bodies are debarred from ever coming into contact. But this is not what is meant. What is meant is that abstract nouns are not proper names, so that to ask what is the relation between the nominee of such a noun and something else is an illegitimate question. The semantic function of abstract nouns is something other than that of denoting subjects of qualities, states, dimensions or relations. To enquire after the qualities, states, positions, sizes or relations of circularity or unity or civility is to ask a nonsensical question. Abstract nouns are not the names of entities (solemn word!), for they are not names at all in the way in which 'Julius Caesar' is the name of someone.

So when we say that there is no relation between a universal and its instances we are only saying the same sort of thing as when we say that yellowness has no colour or circularity has no shape. These assertions suggest that yellowness is woefully anaemic and that circularity is gravely amorphous; but what is meant is simply that such sentences as 'yellowness is yellow or green' and 'circularity is circular or square' are illegitimate, since the abstract nouns are not the names of things possessing qualities.

It is important to see that this is all quite consistent with the admission that there are plenty of significant sentences of the noun–copula–adjective or the noun–copula–noun pattern, the grammatical subjects of which are abstract nouns. 'Yellow is a colour' and 'unpunctuality is blameworthy' are significant and true sentences. Only they do not express singular attributive propositions about one entity of which the proper name is 'yellow' and one of which the proper name is 'unpunctuality'.

The theory of Forms maintained that Forms are terms in relational propositions; namely, that about any Form there will be the true proposition that something does or might stand in the relation to it of exemplification. So this was a doctrine of Substantial Forms, for according to it each Form would be a substance, since it would be an 'entity' possessing at least one relational property.

It is commonly said that where the young Socrates went astray was in

treating universals as if they were particulars. How does one treat a quality or a relation or a dimension as if it were a particular? Not by falsely asserting of it that it has the quality of particularity, for there is no such quality. Treating a universal as if it were a particular can only be speaking as if there could be significant sentences of the simple, singular, attributive or relational patterns having abstract nouns (roughly) for their nominatives; as if, for example, given a sentence like 'This has such and such a quality or relation or magnitude', an abstract noun could replace the 'this' and leave the resultant sentence significant. And this is illegitimate, partly for the reasons already given by Parmenides, partly for reasons yet to come in the dialogue, and partly for reasons which I have suggested.

The reasons are all of one type, namely that contradictions or vicious regresses arise out of assertions which assume the validity of the practice in question.

Parmenides now produces a general argument against the possibility of there existing any relation between Forms and their instances. I am not sure that the argument is valid; it would certainly require a much profounder enquiry into the varieties of relations than Parmenides supplies to establish the point. The argument is as follows. If instances and that of which they are instances, namely Forms, both exist, they will be existences of different orders. Now when a relation holds between terms, those terms are correlates of each other. And these correlates must be of the same order of existence. A slave-owner is the correlate of the slave whom he owns. He owns a slave and not slavery. The correlate to servitude is ownership, while the correlate to a slave is an owner. If there are the two orders of existence—'existence' and 'subsistence' are the titles recently coined—then what exists is correlated with what exists, and what subsists with what subsists. There is no cross-correlation of something existing with something subsisting.

Thus instances of knowing, namely the cases of knowing which we enjoy, are correlated with their objects, namely instances of truth. But knowledge (that of which cases of knowing are instances) is correlated not with truths but with trueness. Hence if there are Forms, they cannot be what our knowings are knowings of. We cannot know the Forms. And if knowledge—in the sense of that of which knowings are instances—belongs to God, then God cannot know us or any of our concerns. (This step is unwarranted. Parmenides is speaking as if that of which knowings are instances is itself a knowing of something and one which God enjoys. I

think he is also assuming or pretending that God, because supramundane, must be a Form, and yet a possessor of knowledge. But if God knows anything, he is a particular, whether supramundane or not; and his knowings will be instances of knowledge.) This last conclusion is rather shocking than convincing; but the general point is of some logical importance, though it is too elliptically presented to carry much weight as it stands. I think that it is true that a relation can only be conceived to hold between terms that are of the same type or level; and if instances and what they are instances of are not of the same type or level, no relation can hold between them. But the notion of types or levels is still a very obscure one, and was much more so in Plato's time when even the much more elementary distinctions of Aristotelian categories had yet to be worked out.

There is now left a big question. It is apparently illegitimate to assert that Forms have this, that or any relation to their instances; it is illegitimate to assert that any quality, relation, magnitude, state, etc., is an instance of itself or of any attributes of the same family with itself. What sorts of propositions can then be asserted about Forms? Are there any cases where it is legitimate to describe one Form as an instance of any other? Are there any attributive or relational propositions about Forms at all? Or is Socrates to be disconcerted in the way in which he repeatedly said that he would be disconcerted by the discovery that propositions about Forms are or entail self-contradictions?

Parmenides says that the young Socrates has got into difficulties because he has not been put through a certain sort of philosophical discipline; namely, he has not learned to explore questions by the Zenonian method of dialectical reasoning. We know well what this method was. Zeno had shown that the premisses of Pythagorean mathematics were illegitimate, since incompatible consequences could be rigorously deduced from them. Those premisses had seemed innocent and plausible, but their hidden viciousness was exposed by the derivation of antinomies from them.

But the method requires a certain expansion. Zeno had shown that certain propositions or hypotheses entailed contradictory consequences; but it is also required to see whether the contradictories of such propositions or hypotheses entail contradictory consequences.

For prima facie we should expect that if a given proposition is shown to be logically vicious, its contradictory must be automatically validated. But if both a proposition and its contradictory are logically vicious, both

entailing contradictory consequences, then the viciousness of those propositions is of a more radical order.

For instance, 'Jones is a childless parent' contains a contradiction, but 'Jones is not a childless parent' contains none, though it contains a 'trifling proposition'. But 'a line is an assemblage of a finite number of points', as well as 'a line is an assemblage of an infinite number of points', generates contradictions. There is an illegitimacy common to both which is first revealed when both are shown to entail contradictory propositions.

Parmenides is prevailed on to give a specimen exhibition of this sort of two-way Zenonian operation, in which he is also to take up Socrates' challenge to show that Forms have incompatible predicates. Namely, he is to take up a proposition or hypothesis about a Form, and show that this hypothesis and also the contradictory of it entail that contradictory propositions are true about that Form.

He gets Socrates to allow that it is an integral part of his theory of Forms, that if there exist instances of something, that of which they are instances itself exists and is something other than they. Goodness, similarity, circularity and the rest are terms of which it is not only significant but true to say that they exist (or are 'entities', if we relish terms of art). It is also taken to be an integral part of the theory that Forms have attributes, i.e. that abstract nouns can be the subject-words in significant and true sentences, of which the predicates signify the having of qualities, relations, magnitudes, states, etc.

Parmenides is going to perform a dialectical operation upon a selected Form; namely, he is going to discover whether a certain hypothesis about that Form, as well as its contradictory, generates contradictions. Which Form will he choose? The list of alternatives out of which he selects is 'plurality (or manifoldness), similarity, dissimilarity, change, changelessness, becoming annihilation, existence, nonexistence and unity (or singleness)'. And he picks on the last on the pretext that it was his philosophical perquisite. The proposition which and the contradictory of which he is going to subject to Zenonian dissection both have for their subjects the Form or concept of Unity or Singleness, that, namely, of which 'all these buildings are one college' embodies an instance.

And here I must differ from Professor Taylor, Mr Hardie and many others on a point of translation. For they render τὸ ἕν as 'The One'. Now this phrase is objectionable on other grounds, for any man of sense will be provoked to say 'the one what'? As it stands, the phrase is incomplete and

meaningless. However, the suggestion is that we are to take it as analogous to 'the Almighty', i.e. as a terse description of a being of which singleness (like omnipotence in the analogous case) is a leading property. But Plato makes it perfectly clear that τὸ ἕν is the name of a Form side by side with ἰσότης or σμικρότης. The English abstract noun 'Unity' is its proper translation. If the Greek language had possessed the word—as it did later on—ἑνότης would have been employed instead.

The collocation of the particle τὸ with a neuter adjective is a perfectly familiar way of expressing what we express by an abstract noun, and the only excuse for rendering it by 'the one' in this dialogue is the presupposition that of course Parmenides must be discussing his Monistic theory, for which there is no internal evidence whatsoever.

While on this matter of translation, we may also complain of Professor Taylor's constant use of such phrases as 'the just equal' and 'the just similar' as translations for τὸ ἴσον and τὸ ὅμοιον or αὐτὸ τὸ ἴσον and αὐτὸ τὸ ὅμοιον. Actually these phrases are only the equivalent of our abstract nouns 'equality' and 'similarity'; but Professor Taylor's phrases are nearly senseless and quite misleading. When we use the word 'just' adverbially we usually mean 'nearly not', as when I reach the station just in time. Or sometimes we use it in the sense of 'merely' as when I call someone 'just an ignoramus'. If either sense were appropriate, phrases like 'the just equal' would be descriptions of particulars characterised as 'nearly not equal' or 'merely equal'—silly descriptions of nothing at all. But in fact, the Greek phrases are used to denote Forms; they mean 'equality' and 'similarity', and the sentences in which they occur make no sense unless they are so taken.

What then are the propositions or hypotheses about Unity which are to be shown to entail contradictory conclusions? And here, unfortunately, there is a real ambiguity in the Greek.

There are three alternatives.

(1) Each hypothesis is the existence-proposition 'Unity exists' or its contradictory 'Unity does not exist'.

(2) Each hypothesis is the attributive proposition 'Unity is unitary (or single)' or its contradictory 'Unity is not unitary (or single)'.

(3) Some of the hypotheses are of type (1) and some of type (2).

If we are primarily interested in the logic of existence-propositions or in the theory of the substantiality of the Forms, we shall be tempted to render all the hypotheses as of the first pattern. If we are primarily

interested in the logical question whether any universal can be an instance of itself, we shall be drawn towards the second.

Both would be natural topics for Plato to explore, after what has already transpired in the first part of the dialogue. The *Theaetetus* and the *Sophist* show that Plato was at this time deeply concerned with the logic of existence-propositions, and they contain no suggestion that he was much exercised about the problem whether a term can be one of its own instances. The prefatory remarks of Parmenides (135–6) strongly suggest that the hypotheses will be of the form 'that so and so exists' and 'that so and so does not exist'. But the internal evidence of the earlier dialectical movements, though equivocal when taken by itself, points as strongly to the second alternative or to the third as to the first.

The difficulty is this. ἐστί can be used as a copula or to mean 'exists'; ἕν can be used as an abbreviation for τὸ ἕν, i.e. substantivally, or it can be used adjectivally, so that it can mean 'Unity' or it can mean 'unitary' or 'single'. And Greek permits the predicate adjective to precede the copula. So the little sentence ἕν ἐστι can mean 'Unity exists' or 'it (i.e. Unity, which has been previously mentioned) is unitary'.

And this is complicated by the fact that Plato is ready to infer from a proposition of the form S is P to 'S exists', since if S has a certain sort of being it must have being, i.e. exist (see *Theaet.* 188–9, *Parm.* 161–2, *Soph.* 252). That is, an ἐστί in the sense of 'exists' follows from an ἐστί, in the sense of 'is . . .'. And conversely, if it is true to say that Unity exists, it is plausible to infer that it is unitary. (This begs a big question—but we cannot say yet that Plato realised that it begs it.)

I am convinced that the correct interpretation is the existential one; that is, that in the first two of the four 'operations' the hypothesis under examination is 'that Unity exists' and in the second two it is 'that Unity does not exist'.[2] When, as sometimes occurs, especially in the first operation, he is deducing consequences from the proposition 'Unity is unitary (or single)', this itself is taken to be an obvious consequence of the original one 'Unity exists'. It has to be admitted that, especially in the first operation, the Greek does not square any better with this interpretation than with the other. But the following considerations make it necessary, if it is possible.

[2] V. Brochard construes the hypotheses in this way in his essay 'La Théorie Platonicienne de la participation' in his book *Études de Philosophie Ancienne et de Philosophie Moderne*.

The general pattern of the argument is simple. There are two main operations upon the affirmative hypothesis, and two main operations upon the negative of it. Let us label them A1 and A2, N1 and N2 ('A' for 'affirmative', 'N' for 'negative'). Next, A1 answers to N1, and A2 to N2, in this way: In A1 and N1 Parmenides is seeing what propositions *about Unity* are entailed by the hypothesis; in A2 and N2 he is seeing what propositions *about terms other than Unity* follow from the hypothesis. (There are subordinate divisions within these operations, which do not matter for our present purpose.)

Now, though the actual formulation of the hypothesis and the development of the argument in operation A1 leave it in doubt whether the hypothesis is 'Unity exists' or 'Unity is single', the formulation of the hypothesis and the argument of N1 make it perfectly clear that here the hypothesis is 'Unity does not exist'.

It is fairly clear too, though less so, that the hypothesis of N2 is 'Unity does not exist'. But from this it follows that the hypotheses of operations A1 and A2 *must* be 'Unity exists', else the promised two-way application of the Zenonian method would be broken. Moreover, this alone is consistent with Parmenides' sketch of the task of the dialectical method in the passages from 135a to 136c. And as I have said, it is corroborated by the facts (1) that in the *Theaetetus* and the *Sophist* Plato is acutely concerned with existence-propositions and (2) that, as we shall see, Aristotle recognises that there was or had been a major philosophical crux about the two concepts of Unity and Existence. And (anyhow later) ὑπόθεσις normally meant the assumption of the *existence* of so and so.

Professor Taylor's translation hinders rather than assists us in this matter. For he rings the changes upon such formulations as, 'if it (i.e. the one) is one' 'if there is one' 'if the one is' 'if the one is not' and 'if there is no one'. None of these is consonant with English idiom, and hardly with English syntax; but anyhow the very variety of them is inconsistent with Parmenides' self-announced task. His task is to explore *one* proposition with its contradictory, and not several. And this proposition and its contradictory must have Unity for their subjects.

Evidence that the single word ἕν is used as a simple substitute for the phrase τὸ ἕν is as follows: καλόν, δίκαιον and ἀγαθόν are so used in 130b and 135c, ἀνόμοιον in 136b. ἕν is indubitably used substantivally at 143b2, 143c5–7, 144a4, 149c7, 160b 5–7 et seq., 161b9, 163c1, 164b3, 164d and e, 165b6, 166b1. Cf. also *Theaetetus* 185d1, 186a8, *Sophist* 238e1,

239a10, *Phaedo* 76 and 77. On my view there are lots of places in the *Parmenides* where this idiom is employed; but I cannot use most of them as evidence, since it is just the conclusion that it is being employed there for which I adduce these other passages as evidence.

There are, of course, plenty of passages where ἕν is certainly being used adjectivally or predicatively.

Before embarking upon the exegesis of the main drift of the Zenonian exercise, there is a matter of some general interest to notice. Why does Plato make Parmenides choose to operate upon such rarefied concepts as Unity and Existence? Or, when making his selection of his victim, why does he only mention as candidates for the post such rarefied concepts as Manifoldness, Similarity, Dissimilarity, Change, Changelessness, Existence and Non-existence? Would not the operations have worked if applied to beauty or justice, circularity or squareness, humanity or animality?

No hint of a reason is given in the dialogue. The answer may simply be that he assumed that what is true of the more generic Forms will cover the more specific ones; the general logical properties of universals will come out most swiftly from an inspection of those which are nearest the peak of the pyramid. That is, Plato may have thought that as Figure is higher than Plane Figure, and that than Triangle, so Similarity, Plurality, Existence and the rest are higher than Figure, i.e. that they are Summa Genera. If he did think this, he was mistaken. This seems to be Professor Cornford's explanation for the selection; he does not recognise that Existence is not a sort-concept.

In fact, these concepts or most of them, and several others, differ from most ordinary concepts not just in level of generality but in type. They are formal concepts, not peculiar to any special subject-matter, but integral to all subject-matters. They belong, so to speak, not to this or that special vocabulary of knowledge, but to its general syntax. Now in the *Theaetetus* and the *Sophist* we find Plato recognising just such a feature of certain concepts. The mode of arrangement of letters which constitutes them a syllable is not itself a letter; and Plato uses this analogy to explain how certain concepts like existence and non-existence have a different sort of logical behaviour from most ordinary concepts, just (as I construe him) because they are not terms in the propositions which we think but the forms of the combinations of those elements into propositions. He does not and cannot fully develop this view. But as it is true and important and was in Plato's mind at this period, it is agreeable to conjecture that it

entered into his motive for selecting the concepts which he does select for subjection to his Zenonian operation.

As what I wish to show is that the *Parmenides* is an early essay in the theory of types, this suggestion has some relevance to what will be my general thesis. I shall take it up again later on.

Another possible motive should be considered. What were the salient properties of Forms according to the strict theory of them? Plainly two; first, that a Form is single whereas its instances are or might be plural. The whole problem was: How can a plurality of objects different from one another be given one name or be spoken of as if there was one identical something in them? It is the prime business of a Form to be single. And, second, a Form had to be real or existent, in order to infect its instances with such meagre contagions of reality as they enjoy. It is by referring to a Form that we answer the question What really *is* this particular?

Now, if Forms, to resolve any of our difficulties, have to exist and to be single, what sort of Forms will these be, namely, Existence and Singularity? Will they too be existent and single? Or not? Clearly the menace of an infinite regress or else a flat contradiction stares us in the face. (Cf. *Philebus* 15.)

For this to have been Plato's motive in selecting for inspection the hypothesis that Unity exists *or* that Unity is single (or their contradictories), he would not have had to suppose that Unity and Existence are Summa Genera, nor yet would he have had to see or half-see that Unity and Existence are *not* Summa Genera but form-concepts. His concentration upon them would have had the historical reason that just these concepts were the sheet-anchors of the whole theory of Forms. He operates upon them, because the whole argument is an *argumentum ad homines*. I think that in fact, if not in Plato's consciousness, this suggested line of approach is only a special case of the one previously mentioned. For what it is tempting to construe as the essential properties of universals will in fact turn out (since universals cannot have properties) to be formal features of propositions, in which of course universals will be factors.

The one motive which I feel fairly sure did not much influence Plato is the one usually mentioned, namely that he wished to discuss Parmenidean Monism. This insipid unitarianism has no special bearings on the truth or falsity of the theory of Forms, and no special bearings on more general questions of logic, and I see no reason why Plato should have interested himself much in it, or much evidence that he did so, whereas there is

plenty of evidence internal to this dialogue and adjacent dialogues that he was very much interested in the theory of Forms and very much interested also in more general questions of logic.

Parmenides has opted to practise his Zenonian operations upon one selected concept; that of Unity. But he does not suggest that the resultant antinomies are peculiar to this concept. The implied suggestion is, rather, that antinomies of the same type could be shown to result from operations either upon any other concepts or upon some other concepts. Parmenides nowhere says which. Either discovery would provide the young Socrates with the disturbance which he had said would trouble him. Whether it is shown in the case of one concept, or of several, or of all, that contradictions arise in their description, it will be enough to show that the promise of the perfect knowability of the supposed supramundane entities has been delusive.

The most tempting reading of the position is that Plato realised or nearly realised that antinomies necessarily arise from the attempt to make any concept whatsoever (from the most specific to the most categorial) a subject of attributes. To assert or to deny that a concept does or does not exemplify itself or another concept is to assert something illegitimate, no matter what that concept may be. A quality or a relation neither has nor lacks any quality or relation. The name of a quality or relation cannot significantly occur as the subject of an attributive or relational sentence. Abstract nouns cannot assume the roles of proper names or demonstratives.

In particular, there is a deep-seated irregularity in sentences of which the verb is the verb 'to exist', and the subject is an abstract noun or the name of an εἶδος. Contradictions arise as well from the denial as from the assertion that Unity or any other εἶδος exists. So the hallowed doctrine that it is only of such subjects that we can with knowledge or truth assert that they really exist is baseless.

This, I say, is the most tempting construction of the message of the *Parmenides*. For, for one thing, it is true. And for another thing, it is completely general. And, thirdly, it rounds off very neatly Parmenides' criticism of the young Socrates' simple theory of Substantial Forms. It had been shown already that Socrates could say nothing of the relations between his Forms and their instances, or between his Forms and our knowings and thinkings. And now it is shown that he can say nothing of the relations between one Form and another Form.

None the less, I am not satisfied that this is the message of the dialogue. I think that Plato thought that the antinomies which he exhibits result from the application of the Zenonian operation to certain concepts, and no such antinomies would have arisen from its application to certain others. There is something logically eccentric about certain concepts, such as Unity and Existence, which does not infect all concepts, though it may infect a few others.

I shall try to formulate this interpretation more accurately later on. For the moment I wish to mention the grounds which make me dubious of the truth of the more tempting interpretation. First, the dialogue the *Sophist*, which is certainly closely connected with the *Parmenides* in date and style, and in certain stretches also in method and topic, nowhere handles any general theoretical difficulties in the theory of Forms; but it does deal very intensively with the logical properties of a few concepts which are of a very formal sort, namely, those of existence, non-existence, similarity, difference, change and changelessness. And it picks up two threads which are already to be found in the *Theaetetus*, namely (1) that there is something logically peculiar about the concepts of existence, and non-existence, and (2) that the modes of combination of elements, like that of letters in syllables or words in sentences, are not themselves elements. And it is suggested that some concepts (but not all) are somehow analogous not to letters or words but to the modes of combination of letters and words, so that the contradictions which perplexed us over these formal concepts arose from the fact that we were trying to treat as 'letters' or 'words' what are in truth modes of combination of 'letters' or 'words'. Or to use the language of Kant and Wittgenstein, we were trying to treat formal concepts as if they were 'proper' or material concepts.

Finally, it seems to me unquestionable that Aristotle (in *Metaphysics* 1001a, 1003b, etc., *Physics* 185–7, *Topics* 121a and b, 127a, and *De Sophisticis Elenchis* 182b) is referring to notorious cruces about the special concepts of Unity and Existence—whether he actually has his eye on the *Parmenides* does not matter. There were clearly difficulties about them which were not thought to attach to most other concepts; they were clearly closely affiliated to each other; and something important is thought by Aristotle to be revealed about them when it is said of them not merely that they are not substances (which is true of all Forms alike), but also that they are not genera and do not fall under any one of the categories as opposed to any

other, but in some way pervade them all—in which respect they are unlike most concepts.

These considerations suggest to me the following way of rendering Plato's line of thought in the *Parmenides* and the *Sophist* (and in lesser degree the *Theaetetus*).

He was beginning to see that there are different types of concepts. (As always happens, a philosophical problem is, at the start, dominated by a status-question. Later, this status-question surrenders its primacy and even its interest to a network of constitution-questions.) (*a*) One difference between types of concepts, specimens of which Plato explores with almost tedious pertinacity in the *Sophist* and the *Politicus*, is that between generic and specific concepts, or between the more generic and the more specific concepts. Thus, living creature—animal—man, or figure—plane figure—plane rectilinear figure—triangle—isosceles triangle, are scales of kinds or sorts, which scales exhibit differences in degree of generic-ness or specific-ness. But this sort of difference is not directly important for our purpose, save in so far as the negative point, to which Plato was, I think, alive in the *Sophist*, is relevant, namely that Existence and Non-Existence are not co-ordinate species of a genus, nor themselves genera having each other or other concepts as subordinate species. The same would be true of Unity and Plurality. (*b*) Another distinction, which Plato himself draws elsewhere, is that between qualities and relations. Relational predicates, with the possible exception of identity, require the existence of at least two terms, whereas qualitative predicates only require one. (*c*) A third distinction, which I think Plato never attends to, is that between simple and complex concepts, or between simpler and more complex concepts. Thus, 'danger' is less simple than 'harm', for it combines the notion of harm with that of likelihood. Completely simple concepts would be indefinable, and definable concepts are complex. It is odd that the Socratic hunt for definitions did not lead to the realisation that some concepts must be simple and so indefinable. Perhaps the cryptic theory, expounded and criticised in the *Theaetetus*, that the ultimate elements of what exists are simples which can be named but not asserted, is an indication that somebody had noticed the point. But it is probable that by 'simple elements' Plato understood atomic particulars, like sense-data, rather than elementary concepts like 'yellow'. (*d*) Quite other than these differences of type between concepts is the difference between formal concepts and 'proper' concepts. A formal concept is one which may have a place in a

proposition about any subject-matter you please, and some formal concepts or other will be present in any proposition. But non-formal concepts will only occur in propositions with this as opposed to that special topic. 'Triangle' occurs in propositions of geometricians or surveyors, and 'catapult' in propositions describing shooting. But 'not', 'exists', 'some', 'other', 'single', 'several' 'is an instance of' 'is a species of' 'and' 'implies' and many others are not peculiar to any special topics.

Such formal concepts are not subject – or predicate – terms of propositions—they are not 'letters', but rather the modes of combining terms. What the spelling of a word is to its letters, or what the syntax of a sentence is to the words in it, that a formal concept is to the non-formal concepts in a proposition.

So it may be that the laborious operations of this dialogue are intended, perhaps only half-consciously, to bring out the difference between formal and ordinary concepts by showing that the logical behaviour of some of the former is anomalous.

II

I have said that the Parmenidean dialectic contains four main stages or operations which I have labelled A1, A2, N1 and N2. Each of these contains two movements. Let us call these M1 and M2, so that we can refer to a given movement as A1 (M2) or N2 (M1) ('M' for movement).

The references to them are as follows:

A1(M1)	137c4	N1(M1)	160b5
A1(M2)	142b1	N1(M2)	163b7
A2(M1)	157b6	N2(M1)	164b5
A2(M2)	159b2	N2(M2)	165e2

The general relation between the two movements within one operation is this, that while M1 (say) proves that the subject under investigation, namely Unity (or, in the other cases, what is other than Unity), possesses both of two antithetical predicates, the other movement M2 proves that that same subject possesses neither of two antithetical predicates. Or rather, in each movement the label of which is M1, say, it is proved that there are numerous pairs of antithetical predicates both of the members of all which pairs characterise the subject, while M2 establishes that the

subject is characterised by neither of the members of these several pairs of antithetical predicates. And in general the predicate-couples considered in M1 are more or less the same as the predicate-couples in the corresponding M2.

Actually, in A2, N1 and N2, the first of the two movements in each case proves that the subject possesses both of the members of the pairs of antithetical predicates, while the second movement proves that it possesses neither; but in A1 the order is the other way round, M1 proving that it has neither and M2 proving that it has both.

A1(M1). The first movement of the first operation, namely A1(M1), is (according to my interpretation) as follows:

If Unity exists, it cannot be manifold and therefore must be unitary or single. It cannot therefore be a whole of parts. It will not therefore have outer or inner parts, and so it will have no figure. It will have no location and no surroundings and so no change of position or stationariness of position. Change and fixity of relations are forbidden to it. It cannot be numerically different from anything or identical with anything: it cannot be identical with anything else or different from itself, for obvious reasons; and it cannot be different from anything else, because being different is different from being single, so that if it is single it cannot be that *and* be different from anything. Equally it cannot be identical with anything, even itself. For unity is one thing and identity is another. (This seems a dubious step. Certainly unity is not the same as either identity or difference. But it does not seem to follow that it cannot *enjoy* identity or difference, save on the assumption that unity is single *and* has no other properties than singleness. However, this point is now affirmed.) If Unity has any other attributes than that of being unitary, then it is *ipso facto* shown to be several things, which severalness is inconsistent with its unitariness. Unity cannot be *both* unitary *and* anything else at all, even identical with itself. Since similarity and unlikeness are identity and difference of attributes, Unity cannot enjoy either similarity or unlikeness, and so neither equality nor inequality of dimensions. So it cannot have equality or inequality of age with anything, and so cannot have an age at all, and is therefore not in time.

Its existence therefore is existence at no date, and this is non-existence at every date. It cannot, therefore, exist, and if it does not exist it cannot carry its alleged special property of being single, since there would be

nothing in existence for the property to characterise. So Unity neither exists nor is it single. No name can be the name of it, no description the description of it, and there can be no knowledge, opinion or perception of it. It cannot be talked or thought about (since there isn't any 'it'), which is absurd.

Comment. This, like all the other operations, smells highly artificial. There must be something wrong with the several deductions. We are inclined to say that the starting-point was illegitimate, and to write off 'Unity exists' and 'Unity is unitary' as bogus sentences—the latter for making a universal one of its own instances, the former for tacking the verb 'to exist' on to what is supposed to be a logically proper name. We may also suspect that the argument presupposes that singleness is a quality, when it is nothing of the sort. Doubtless we are correct on all these scores—but how can the illegitimacy of such procedures be established? Not by prima facie unplausibility, for the Theory of Forms did seem plausible and did entail (1) that every universal is single; (2) that every abstract noun is not only possibly but necessarily the subject of a true affirmative existence-sentence; and (3) that being single is a case of having an attribute.

The illegitimacy of the starting-point is established by the impossibility of the consequences that must follow if the original propositions are taken to be both legitimate and true. We must not be superior and appeal to sophisticated distinctions between formal and non-formal concepts or to professionalised classifications into 'categories' or 'types' of the various sorts of logical terms; for the necessity of such distinctions and classifications had first to be shown. Plato is showing it, though it may well be that he could not formulate what it was that he was showing. Of necessity he lacked the language of categories and types. That there are different forms of judgement and what their differences are could hardly be familiar at a time when the very notion of 'judgement' had yet to receive its introductory examination, e.g. in the *Sophist*. And little progress could be made in the former enquiry until principles of *inference* became the subject-matter of specialised research.

We can say, glibly enough, that qualities do not have qualities and also that existence and unity are not qualities. For we have been taught these lessons. But what first made it clear to whom that these lessons were true, unless some such ratiocinations as these?

To say that a term is of such and such a type or category is to say something about its 'logical behaviour', namely, about the entailments

and compatibilities of the propositions into which it enters. We can only show that terms are not of one type by exhibiting their logical misbehaviour when treated alike. And this is what Plato is here doing.

To complain that the several conclusions are absurd is to miss the whole point. Plato means to prove that the premisses must be illegitimate because the conclusions are absurd. That is the sole and entire object of *reductio ad absurdum* arguments, which is what all these arguments are.

A1(M2). This, the second movement of the first operation, is the longest of them all. And it is insufferably tedious. Its object is to prove that Unity has both of the members of all the predicate-couples, the lack of both of the members of which had been established in A1(M1).

If Unity exists, it must partake in or be an instance of existence. So being unitary is one thing and being an existent is another. So the Unity to which existence belongs will be a compound of Unity and Existence, a compound having those two parts or members. The whole containing these parts will itself be unitary and existent, and so also each of its members will be both unitary and existent and thus will be another compound of these two elements over again, and this will continue forever. So if Unity has existence, it must be an infinite manifold.

Next 'Unity' and 'Existence', not being synonymous, must stand for different things. So both will be instances of difference or otherness, which is consequently a third term over and above those original two. We can now speak of one couple consisting of Unity and Existence, another couple consisting of Unity and Otherness, and a third of Existence and Otherness.

And the constituents of a couple are units both of which must be unitary in order to be instances of unit. A couple plus the third unit will make three objects, and as couples are instances of even-ness, and threes of odd-ness, the Forms of Even-ness and Odd-ness are also now on our hands. And as multiplying consists in, e.g. taking couples three at a time, or threes twice at a time, we can get any number in this way. All arithmetical concepts are automatically generated; from the existence of unity the existence of every number follows, i.e. an infinite number of objects must exist. Every number yields an infinity of fractions, so Unity is fractionised by its interlocking with Existence into as many members as there could be arithmetical fractions, i.e. an infinite number.

Being a whole of parts, it must contain its parts. There must be a

distinction between what is and what is not contained by it. So it must have limits and consequently be finite, for all that there is an infinite number of parts which it contains.

If it has limits or boundaries it must have a beginning and an end as well as a middle: and it must have a configuration or shape. (Parmenides here unwarrantably jumps to the conclusion that it must have a *spatial* configuration.) Being a whole of parts, Unity cannot be a part of any of its parts, nor can it be just one of its own parts. It cannot therefore be one of the things that it itself contains. To be anywhere it must be in something other than itself; yet since everything countable is among its parts, it must be contained in itself. This is supposed, I think invalidly, to imply that it must, *qua* self-containing, be immobile, and, *qua* contained by something else, be mobile.

Next, Unity, not standing to itself as part to whole or as whole to part, must be identical with itself, fully and not partially, and it must also be fully and not partially other than whatever is not Unity. But the next stage seems very paradoxical. For it is to be argued that Unity is *not* different from what is other than it and also is *not* identical with itself.

For a container is not where its contents are, since they are inside it, which it cannot be. Now Unity has just been shown to be both content and container, so it must be elsewhere than itself and so not be identical with itself.

The opposite point, that Unity is identical with what is not Unity, is shown in this way. Otherness cannot characterise anything, for everything is 'itself and not another thing'. So neither Unity nor what is not Unity can possess otherness. And as what is not Unity cannot be either a part of Unity or a unitary whole of which Unity is a part, it is only left for Unity and what is not Unity to be identical. (This argument pretends, for the moment, that 'otherness' is the name of a quality. Of course it isn't a quality—but why not?)

Next, since Unity is other than what is not Unity, and vice versa, both Unity and what is not Unity must exemplify otherness. But in their both being instances of the same attribute, namely that of otherness, they must be similar in that respect. For that is what similarity is, the possession by two things of the same character. Now identity is the opposite of otherness. But it has been shown, in an earlier argument, that Unity must be identical with what is not Unity (146–7); consequently, as the possession of identity is the non-possession of otherness, there must be this

respect of dissimilarity between Unity and what is not Unity. For by this argument a suggested shared property is not shared. It follows that Unity is both similar and dissimilar both to what is not Unity and to Unity itself.

I skip the detail of the next few stages of the argument. It is argued that Unity must be both in and out of contact with itself and with the 'field';[3] that it must be both equal and unequal to itself and the 'field', that it must be greater and smaller than itself and the 'field' and also older and younger than itself and the 'field', and also be neither of these.

Then, to controvert the end conclusion of A1(M1) it is shown that Unity does exist at every time and is there to be named and described, known and thought about.

Finally, since the only way in which a subject can be conceived both to have and to lack a given property is that it *alters* having the property at one date and lacking it at another, it is argued that Unity changes, develops, decays, and moves as well as being immutable and static, and that the time of its changings and movings must be a time which takes no time—at which time it is in neither of the conditions from or to which its transition is. (This looks like a variant of a Zenonian paradox about motion.)

Comment. Naturally we feel that most of the foregoing assertions, with the arguments leading to and from them, are absurd. Concepts are being played with fast and loose. Those of one type, with one sort of logical role, are being made to understudy or deputise for others of quite different sorts. Different concepts should not be treated as if the rules of their co-functioning were all similar. Precisely—but only absurdities reveal the different rules, and the *reductio ad absurdum* argument marshals the absurdities.

A2(M1). Parmenides now enquires: From the assumption that Unity exists, what consequences follow about τὰ ἄλλα? He will argue that this subject too must possess opposite predicates. What exactly does τὰ ἄλλα denote? We have no reason to restrict it, for example, to the objects of sense or opinion; nor yet to the Forms other than Unity. It must be taken to cover all terms whatsoever, of whatever sorts, which are other than Unity. So Circularity as well as Alcibiades, the Equator as well as my

[3] Meaning by this the totality of all that is distinguishable from Unity.

present pang of pain, will be members of this *omnium gatherum*: let us just call it, in racing parlance, 'the field'.

The field is other than Unity, yet it embodies it. For it has members, being a plurality, and so must be *one* aggregate or whole of those members. Moreover, each of those parts of members must be one part or member. A whole is a plurality of units, so it is a unit and each of them is a unit.

But though or because they exemplify it, it is not and none of them is Unity. A thing is not that of which it is an instance. So since the field is not Unity it must be a plurality or manifold. And the argument, which I skip, is developed that such a plurality must be both a finite and an infinite plurality, so each of its members will be so too.

Being both limited and unlimited, the field and its several members are similar to one another, since they all co-exemplify limitedness and unlimitedness; yet since these are opposite predicates, what exemplifies one must be unlike what exemplifies the other, as what is black is unlike what is white. Similarly it could be shown, though it is not shown, that the field and its several members must enjoy both identity and otherness and both change and changelessness, etc.

A2(M2). Unity and the field are an exhaustive disjunction; there can be nothing which does not belong to the one camp or to the other. So there can be no superior camp, to which both these camps are subordinate as members. Hence Unity will have no truck with the field, either so as to constitute it as *one* whole of parts, or as an assemblage of *unitary* parts. So the field cannot be a plurality, nor will any number be applicable to it, or to any part or feature of it. So the field cannot possess either similarity or dissimilarity or both at once. For both together would be a pair and each by itself would be single, and these are applications of number. For the same reason the field cannot be identical or different, stationary or mobile, coming into or going out of existence, greater or smaller or equal.

The conclusion of all the movements of both operations A1 and A2 is thus summed up. If Unity exists it both has every predicate and lacks every predicate, including that of unity. And the same holds good for the field too.

N1(M1). We now turn to the consequences of the hypothesis that Unity does not exist. The proposition that Unity does not exist clearly differs in

having a different subject from the propositions that largeness or that smallness does not exist. So we know what 'Unity' denotes and that it denotes something other than what these other nouns denote, whether our judgement is that there does or that there does not exist such a thing. So Unity is something which we apprehend, and it possesses and is known to possess the attribute of being other than the terms which we have distinguished from it. Consequently Unity, for all that it does not exist, is an instance of various things. The word 'it' applies to it. Being distinguished, it has dissimilarities from what it is distinguished from, and as it is not so distinguishable from itself, it must have the opposite of dissimilarity, namely, similarity to itself. (We may grumble at this step. The inference 'I am not unlike myself, therefore I must be like myself' contains a fallacy. But what sort of fallacy? The inference is valid if I am compared with my father, so why does it not hold good in this case? If we say 'because the terms to the relations of likeness and unlikeness must be numerically different', then we are asserting a very special sort of 'must'. Namely, we are saying that 'I' and 'like/unlike' are terms which are of such formal constitutions that absurdity results from their juxtaposition in this way. And that *is* a discovery about the formal properties of certain sorts of terms. It shows that similarity is not a quality. But the distinction of quality-concepts and relation-concepts is a distinction between types of concepts.)

Being unlike the field, it cannot be equal to it or its members; so it must be unequal to them. But inequality is in respect of largeness and smallness (since for two things to be unequal in size one must be relatively large and the other relatively small). So Unity possesses largeness and smallness (the argument would only prove that it must possess at least one of the two); but as being big is the opposite of being small, Unity must, by way of compromise, have what is betwixt and between the two, i.e. equality with itself. (This is fallacious—but why?) Unity therefore is an instance of bigness, smallness and equality.

But if it has all these predicates, Unity must, though non-existent, still enjoy being in existence in some fashion. For if the above descriptions were true, they described it as being what it really is. Unity must be there for us to be able to say or think that it does not exist. But also it must not be there, for its non-existence to be truly predicated of it. But hovering in this way between existence and non-existence is change, and change or transition is motion. (This is illegitimate—but to see why it is

illegitimate is to see something important about the concepts of existence, non-existence and change.)

Yet since it does not exist it cannot be anywhere or move anywhence anywhither. And the other sort of transition, from state to state, is also ruled out; for if unity changed in this way it would cease to be Unity and become something else.

But to be exempt from movement and change is to be stationary and immutable. So Unity both is and is not mobile, and both is and is not mutable. And it also follows both that it is and that it is not subject to generation and annihilation.

Comment. The interesting parts of this movement are the stages where we find the famous argument that that of which it is true that it does not exist must be *there*, in some sense, to accept this ascription of non-existence and also to be distinguishable from other terms, existent or non-existent. We are enlightened enough to say (with Kant) that 'exists' is not a predicate or (with latter-day logicians) that the nominatives to verbs of existence do not function as demonstratives or logically proper names; but the penalties of not saying so are here exhibited. Doubtless the rules governing the logical behaviour of verbs of existence are still obscure to Plato; but that there are such rules, and that they are different from those governing ordinary predicates, is here being realised by him. For absurdities result from treating them alike. Plato seems to be ahead of Meinong here.

N1(M2). If Unity does not exist, it is lacking in all modes, departments or sorts of existence. It can enjoy neither coming-to-be nor annihilation; it cannot be subject to mutation or motion, nor, being nowhere, can it be stationary anywhere.

Indeed, it can have no attributes or properties, neither largeness, smallness, nor equality, neither similarity nor difference. It cannot even be correlated with a field, for its having such a correlate would be a relational property of it. It has no attributes, parts, relations, dates, and it is not there to be known, thought or talked about, perceived or named. There is no 'it' at all.

Comment. It seems to follow from this that all negative existence propositions must be nonsense if they are true, since there is nothing left to support the negative predicate. So the name of the subject of predication is the name of nothing. From this it is a short step, which Plato does not take (any more than Meinong did), to seeing that the nominatives to verbs of

existence are *not* the names of anything, and 'exists' does not signify a quality, relation, dimension or state, etc.

N2(M1). If Unity does not exist, what predicates attach consequentially to the field? Plainly, the field must by definition be other, yet it cannot be other than Unity, since this, by hypothesis, does not exist for the field to be demarcated against it. The field must be other in the sense that its members are other than one another.

Yet, since Unity does not exist, the members of the field cannot be unitary or be units; so the field can only be a manifold of manifolds without end. Only of such manifolds can we say that they are other than each other—since there is nothing else to say it of. Each manifold of manifolds will seem to be single, though not really being so. And numbers will seem to be applicable to them, though the seeming will be illusory. Derivatively, the concepts of odd and even, greater, smaller and equal, limit and unlimitedness will appear to have application, together with those of unity and plurality, similarity and dissimilarity, etc., etc. Yet if unity does not exist, none of these concepts can really have application to the field.

N2(M2). If Unity does not exist, the field cannot be single, nor can it be a plurality, else it would be *one* plurality and its members would be units. Nor could the field seem to be either single or a plurality. For since there is no Unity, there is nothing of the sort for the field to exemplify or participate in in any respect whatsoever. So the field cannot be thought, even, to be single or plural or to be an instance of anything else, such as similarity or dissimilarity, identity or otherness, contact or separation, or anything else at all. The field could not therefore be thought to exist. So if Unity does not exist, nothing exists. So, whether Unity exists or not, Unity and the field both have and lack every predicate and its opposite. 'Very true' is the last word of the dialogue.

What is the outcome of all this tiresome chain of operations? First, *ad hominem* it seems to have been proved, in the case of at least one extremely eminent Form, what Socrates was reluctant to believe could be proved, that a Form does undergo hosts of incompatible predicates, and that these disagreeable consequences flow not only from the palatable hypothesis that that Form exists but also from the unpalatable hypothesis that it does not exist.

But what does Plato think to be the important lesson of the whole dialogue? Here we can only make more or less plausible conjectures.

(1) Plato might think that the whole argument proves that no universal can be the subject of an attributive or relational proposition; and he may have confused with this the quite different point that no universal can be the subject of an affirmative or negative existence-proposition. (For he may have thought wrongly, as Descartes and Meinong did, that 'exists' is a predicate of the same category, i.e. with the same sort of logical behaviour, as 'is square' or 'is green'.) Universals are not substances, or abstract nouns are not proper names, and sentences in which we talk as if they were are logically vicious.

This conclusion is true, and relevant to the question of the truth of the Theory of Forms. So it may be what Plato had in his mind.

(2) But Plato may be apprising himself and us of a seemingly more parochial discovery, namely that some concepts do not behave in the same way as some others.

He may, for example, be making the discovery that 'exists' and 'does not exist' do not have the same sort of logical behaviour as 'breathes' or 'resembles' or 'is square'. If we consider the concepts which occur in our ordinary descriptions and classifications of things, they seem to fit reasonably well into scales of genera and species. And we can imagine a table depicting all the ladders or pyramids of generic and specific concepts, such that any descriptive or classificatory concept would have its place fixed for it somewhere in one and not more than one such ladder or pyramid. But there are some concepts which can be peculiar to no one ladder or pyramid but must somehow pervade them all. Such are the concepts answering to expressions like 'not', 'exists', 'same', 'other', 'is an instance of', 'is a species of', 'single', 'plural' and many others. Some concepts are 'syncategorematic'.

At first sight we may be tempted to take such concepts, which are obviously of very general application, to be merely highly generic concepts, perhaps actually Summa Genera. But if we do so take them, our enterprise collapses, for just these concepts are again required when we attempt to describe the affiliations or non-affiliations between Summa Genera themselves, and also between the sub-divisions, not of one but of all the sort-hierarchies.

Formal concepts, as we may now call them, differ from generic ones not in being higher than they in the way in which they are higher than

specific concepts, but in some other way. They differ from generic concepts not, for example, as 'Even Number' differs from '2', but as '+' and '$\surd$' differ from either.

Or again, to pick up again the two analogies which Plato uses in the *Theaetetus* and the *Sophist*, formal concepts differ from generic and specific concepts not as one letter of the alphabet differs from another or as one bunch of letters differs from another bunch of letters, but as the mode in which letters are arranged into a syllable or word differs from the letters which are so arranged: or else as the way in which nouns, verbs, adjectives, etc., are combined to form a significant sentence is different from those elements or even from the way in which one such element, like a noun, differs from another, like a preposition. What a grammatical construction is to the words of a sentence embodying that construction, that a formal concept is to the terms (particulars and ordinary universals) which enter into the proposition or judgement.

Now when we treat a formal concept as if it were a non-formal or proper concept, we are committing a breach of 'logical syntax'. But what shows us that we are doing this? The deductive derivation of absurdities and contradictions shows it, and nothing else can. Russell's proof that, in his code-symbolism, φ cannot be a value of x in the propositional function φx is only another exercise in the same genre as Plato's proof that 'Unity' cannot go into the gap in the sentence-frame '. . . exists' or '. . . does not exist'.[4]

I feel fairly sure that this is something like the point which Plato was trying to reveal in this dialogue. I feel this partly because the imputed doctrine is true and important and partly because, so construed, the dialogue then links on directly to the later parts of the *Theaetetus* and to almost the whole of the *Sophist*. Whereas the first interpretation which I suggested has no echoes of importance in either dialogue.

Moreover, we know that Aristotle was alive to the fact that there was a special crux about Unity and Existence; and also that these concepts with some others (e.g. Good) did not come under any one of the Categories but

[4] It is worth noticing that the concept of being-an-instance-of, about which the discussion turned in the first part of the dialogue, is in fact a form-concept, and not a proper concept; the contradictions and circles which embarrassed Socrates did arise from his attempt to treat it as if it was from the same basket with ordinary relations. However, Plato does not point this out. We can conjecture that the second part of the dialogue does contain (between the lines) the answer to the problem of the first part; but we cannot say that Plato was aware of it.

exhibited themselves in all of the Categories: nor were they concepts of the genus-species sort.[5]

And (in *Met.* 1003b and 1053b) he uses for both 'existence' and 'singleness' the argument which Hume and Kant used for 'existence', to show that they do not signify attributes; namely that the descriptions of a man, an existent man and a single man are not descriptions of different sorts of men.

And lastly I am tempted to prefer this interpretation to the other on the score that it does more credit to Plato's powers of discerning the important in logical questions. There is, indeed, an agreeable sweepingness in that suggested message of the dialogue according to which Plato was proving the general point that universals are not subjects of qualities or relations. But its sweepingness would only be *sanitary*, for it would only be establishing the negative point that there was something wrong with the foundations of the theory of Forms.

It would have small instructive effect on thinkers who had never adopted the belief that abstract nouns are the names of substances.

It would leave open and, worse, it would leave almost unformulated the profounder question, What is wrong with those foundations? *This* question requires the discovery of the difference between formal and non-formal concepts—and this discovery is required for all sorts of logical problems, and not only this special historical one of the nature of the fallacy underlying the special doctrine of Substantial Forms.

One objection to the foregoing interpretation of the dialogue is sure to be made. It is incredible, it will be said, that the central doctrine of Platonism, namely, that Circularity, Unity, Difference, etc., exist, should be shown by Plato himself to be logically vicious, even though he mitigates the cruelty of his exposure of his earlier children by showing that there would be a precisely parallel viciousness in the doctrine that they do *not* exist. On minor points, doubtless, Plato's second thoughts might be expected to be improvements on his first thoughts, but that he should overtly demonstrate the untenability of the very principles of the system from which his whole influence upon subsequent thinking derives is too shocking a supposition.

[5] And cf. *De Interpr.* 16b, where Aristotle explicitly says that 'is' and 'is not' only function significantly in the assertion of some synthesis, and cannot be thought except together with what is combined in such a synthesis.

But such an objection does less than justice to a great philosopher. Kant is felicitated for being capable of being awoken from dogmatic slumbers; Aristotle is permitted to be fonder of truth than of Platonism; those of Russell's contributions to logical theory are considered important which belong to the periods after his affiliation to Kant, Bradley, and Bosanquet. Why must Plato alone be forbidden the illuminations of self-criticism?

Moreover, it has long been recognised that in the whole period which includes the writing of the *Theaetetus*, the *Sophist*, the *Politicus* and the *Philebus*, Plato's thinking is not entirely, if at all, governed by the premisses of the Theory of Forms.

He attends to the theory on occasions, but he does so in a dispassionate and critical way. In the *Sophist* (246) the exponents of the theory of Forms are treated in the same way as are the materialists; neither can answer the Eleatic Stranger's puzzles about existence and non-existence. Similarly in the *Philebus* (15). Moreover, if it is true that the theory of Substantial Forms embodied radical fallacies, to praise Plato as a great philosopher, as we do, would be consistent with crediting him both with the acumen to recognise and the candour to expose them.

But more important than these considerations is this fact. Whatever its sublimity and inspiration-value, the Theory of Forms had been from the start, *inter alia*, a doctrine intended to resolve certain puzzles of a purely logical nature. How can several things be called by one name or be of one sort or character? And how is it that only those systems of propositions express certain knowledge which contain neither the names nor the descriptions of actual instances of sorts or characters—namely mathematics and philosophy?

The Theory of Forms was intended to answer both these questions. It fails to be a satisfactory theory, for the reason, mainly, that exactly analogous questions arise about Substantial Forms to those questions about the instances of Forms which the theory had been intended to resolve. And in so far as it was the wrong sort of answer.

But something remains. It remains true that every judgement or proposition embodies at least one non-singular term or element. It remains true that the propositions of mathematics are universal propositions. And it remains true that in some sense, some or all philosophical questions are of the pattern 'What is it for something to be so-and-so?' (where 'being-so-and-so' is a universal).

The criticisms of the doctrine of Substantial Forms given in the

dialogue have no tendency to upset these positions even if they do not directly yield an answer to the problems which they raise. But the road is cleared for an answer to them, a road which was blocked by the fascinating but erroneous theory which they dispose of. Nor could the new advances have been begun save by someone who had himself gone through the stage of being at least very familiar with the theory of Substantial Forms.

In particular, I shall suggest, the road is now cleared for the advance which was partially made in the *Sophist*, where for the first time the possibility and the need of a theory of categories or types is realised.[6] The distinction between generic concepts and formal concepts is here seen or half-seen, and logical enquiries are at last capable of being begun.

In fine, on my theory, the *Parmenides* is a discussion of a problem of logic—as part of the *Theaetetus* and most of the *Sophist* were discussions of problems in logic. Not that Plato *says*, 'Let us turn back from Ethics, Metaphysics, Epistemology and Physics and consider some questions belonging to the province of Logic', for these titles did not exist.

But his questions and his arguments in this dialogue should be classified by us as belonging to the same sphere to which belong, for example, Aristotle's theory of Categories, Kant's separation of formal from non-formal concepts, Russell's theory of types, and Wittgenstein's and Carnap's theories of logical syntax.

Whether, if I am right, the dialogue is interesting is a question of taste. The central problem seems to me of radical importance and therefore interesting, potentially, to any philosopher who cares to get down to the roots. But the detail of the argument is arid and formalistic and so sustained that everyone must find it tedious—in the same way as the methodical dissection of Vicious Circle Fallacies is tedious if it is thorough.

I do not think that the dialogue could or should be interesting to a student who is primarily anxious to know Plato's later views about the human soul, or God, or immortality, or physics, or Parmenidean Monism. For, as I read it, the dialogue contains no references to such topics and no premisses from which conclusions about these topics can be deduced.

The dialogue is an exercise in the grammar and not in the prose or the poetry of philosophy.

[6] I use the word 'category' in a less misleadingly precise way than Aristotle.

To corroborate the foregoing theory about the programme of the *Parmenides*, I append some remarks about the *Theaetetus* and the *Sophist*, in which, I think, the same or kindred lines of thought are to be traced. These dialogues were certainly composed close to the date of the *Parmenides*. The *Sophist*, which is a sort of sequel to the *Theaetetus*, was certainly written after the *Parmenides*, to which indeed it makes one or two undoubted allusions and of which, in an important stretch, it partly echoes and partly presupposes a part of the dialectical operations. The *Theaetetus* was almost certainly in part, and perhaps as a whole, composed after the *Parmenides*, and it contains what is probably a reference to it.

The 'Theaetetus'

With the main problem of this dialogue I have here no special concern. It is an enquiry into the nature of knowledge. It begins with a sustained exposition and criticism of the theory that to know something is to have sense-acquaintance with it or memory of sense-acquaintance with it. It is soon shown that neither this theory nor a more generalised analogue to it can account for our knowledge about the future, or of the truth of theories about what is right or expedient, especially of the truth or falsehood of this theory of knowledge itself, or even of mathematical truths. And it is briefly indicated that even within the field of the objects of sense-acquaintance it will not do. For to know that sense-given objects exist or do not exist, are similar or different, single or plural is to do or experience something more than merely having sense-acquaintance. So a new hypothesis is considered, the gap between which and the previous view is of the greatest importance not only for the theory of knowledge, but also for our special problem. For it is now suggested that to know is to judge, or is a species of judging. And this means—to bring together threads from earlier and later parts of the dialogue—that knowledge requires for its expression not just a name but a sentence or statement. And what a sentence or statement expresses always contains a plurality, at least a duality, of distinguishable elements or factors. Knowledge, as well as true and false belief and opinion, cannot be expressed just by a proper name or demonstrative for some simple object, but only by a complex of words which together constitute a sentence.

At this point Socrates does something which at first sight seems to be deserting the direct path in order to follow up a side-track. For he

suddenly opens up a prolonged enquiry into the nature of false beliefs or mistakes, and is of necessity at once led to debate how we can either think or state that which is not. How can I either think or describe something which is not there to be the object of a thought or description? But I think that this is in fact no digression at all. For, first, it is true that I can only be described as knowing the same sort of things as I could be described as mistaken about. To know is, at the least, to be under no mistake. And, second, any description of any actual or possible mistake automatically reveals the complexity both of what is falsely judged and, correspondingly, of what would be truly judged. For to mistake is to take something for something instead of for something else.

So a 'simple' could never be the object of a mistake. I could mistakenly think that 7+5 = 11, and unmistakenly judge or know that 7+5 = 12. But 7 could not be the total object of a mistake, and so, by implication, not the total object of a piece of true belief or knowledge either. And this is what was at bottom wrong with the equation of knowledge with sense-acquaintance. This noise or that stench is not the sort of thing that could be described as what I mistakenly believe, and therefore it is not the sort of thing which could be described as what I correctly believe or know. There must be a complex of distinguishable elements as well in what I know as in what I mistakenly or correctly believe. What I know are facts, and facts always have some complexity. So 'simples' could not be facts, though they would be elements in facts. Only a proper name could directly stand for a simple, and only a sentence could state a fact.

Now, without raising for the moment the question what are the simples or elements of which what I know or believe are complexes, or even whether there are any such elements, we can see that a complex of elements must be one of two things. Either it is just a lot or assemblage of elements or it is some sort of union of or fabric embodying them. Either the required complex of elements A, B and C just is A and B and C, so that to know the complex would just be to know A and to know B, and to know C, which would merely be to go back on the result already arrived at and to suppose that what can be named but not stated could be what I know. Or the required complex is some sort of an organised whole, of which the principle of organisation is distinguishable from the elements which it combines. And in this case the principle of organisation is something unitary and not to be resolved into a plurality of elements; that is, it is a new 'simple', somehow superadded to the original elements

which it organises into the single complex. But if we may not say that simples are what we know, we may not say it either of this new combining simple.

This point is brought out by means of the analogy of letters in syllables. A syllable is a complex of letters, which themselves are not complexes. Now *either* a syllable is nothing but the lot of letters in it, in which case to know it is just to know each of them, an illegitimate hypothesis if what I know must always be a complex. *Or* a syllable is some ordered arrangement of letters. But in this case the order of arrangement is not a lot of letters but something unitary and irresoluble. And then it is an extra simple element (though not, of course, one of the same type as a letter). Finally it is argued, on the tacit assumption that by a 'complex' can only be meant either a conjunction of similar elements ('letters') or a conjunction of some elements of one sort ('letters') plus at least one element of a different sort ('order of arrangement'), that in fact such conjunctions or assemblages are not more knowable but less easily knowable than what they are conjunctions of.

If knowing was inventorying collections, certainly simple elements could not be known. But in fact, whatever knowing is, collections are not more accessible to knowledge than their members are. Moreover, inventories are just as well capable of being the objects of true or false beliefs as of knowledge. So the differentia of knowledge is not to be found in this direction.

Now this discussion reveals at least two extremely important points.

(1) It is true that if the universe contains simples, such that for each there could be, in principle, a proper name, the utterance just of this proper name could not be the expression of true or false belief or of knowledge (in the sense of 'knowledge that . . .'). What I believe or know requires a whole sentence for its expression, and what a sentence states is *in some sense* a complex. It is always possible to find for any sentence another sentence the signification of which is *partly* similar and *partly* dissimilar to that of the given sentence, i.e. what a sentence says contains parts or factors distinguishable from each other and capable of some independent variations by substitution.

Now, though Plato does not make this application, Substantial Forms were supposed to be just such simple namables. And if we ask ourselves: What would it be like to be knowing Equality or knowing Justice or knowing Existence?, and, still more, if we ask: What would it be like to be

mistaken about Equality or Justice or Existence?, we find ourselves bothered and bothered for the very reason that Plato here gives, namely that we know that when we describe ourselves as 'believing or knowing so and so', a proper name cannot go into the place of the accusative to those verbs.

Oddly, Professor Cornford, who approves of the refutation of the view that knowing is having sense-acquaintance, since knowing is, or is a species of, judging, still believes that Plato's real theory of knowledge, unexpressed in this dialogue, was that Substantial Forms are what knowledge is of. Yet this would involve that 'Equality' and 'Circularity' do express knowledge, for all that it would be nonsense to assert that any such abstract noun could express either a mistaken or a true belief.

Socrates draws attention to an important affiliated point when he asks how we can mistake one thing for another either when we know both (supposing still that we may speak of knowing 'things'), or when we know neither, or when we know one and not the other. And he asks: Who has ever mistaken the number 11 for the number 12 or vice versa, for all that plenty of people have taken 7+5 to equal 11? No one has ever told himself that an ox must be a horse or that two must be one, that beauty is ugliness or justice is injustice. By analogy we might ask (though Socrates does not): Who ever told himself the infallible tidings that 11 is not 12 or that 11 is 11, that justice is not injustice or that ugliness is ugliness?

It is tempting to suggest that the moral of this puzzle and of later developments of it is something like this, that while a mistaken or a true judgement must contain some plurality of elements, this requirement as it stands is too hospitable. Not any combination of any sorts of elements constitutes a possible mistake, or in consequence, a possible truth. '7+5 = 11' is a possible mistake, but '12 is 11' is not. 'Theaetetus is Theodorus' is not a possible mistake, but 'Theaetetus is the son of Theodorus' is. The elements of what I know or believe will not all be of the same type. But Plato does not here allude to any such lesson.

(2) But anyhow it is unquestionable that Plato is in this dialogue alive to the following matters. What I know or truly believe or falsely believe is some sort of a complex of elements, and one the verbal statement of which requires not a name only, nor even a conjunction of names, but a complex expression of which the special form of unity is that of a sentence. What constitutes a complex, like a syllable, a unity is

some feature of it other than any one or the mere lot of its elements, such as letters.

That is, Plato is now considering the places and roles of 'terms' in truths and falsehoods, with his eye on the underlying question of what are the principles of organisation which govern the combination of such 'terms'. He does not say, nor are we warranted in inferring from the contents of this dialogue that he saw, that there are some concepts, namely form-concepts, which cannot do duty for proper concepts or ordinary 'terms', much less that he saw that 'exists', 'not', 'one', 'several' and others do express such form-concepts. But it is clear that he is consciously developing a method of inspecting the formal properties of such complexes of elements as constitute truths and falsehoods. He knows that names are not true or false, that sentences are not names, that sentences are not just assemblages of names or composite names resoluble without residue into several component names; and he knows that nothing less than sentences will express what we know or truly or falsely believe. A mere inventory of namable simples would not only not be all that we know, or wish to know, it would not even be any part of what we know or wish to know.

In any truth or falsehood there must be some multiplicity of distinguishable factors, and of these at least some perform a different sort of function from some others—the order of arrangement of letters in a syllable does not play the same sort of role and so is not the same type of factor as the individual letters. Of course, Plato has not got a substitution-method, or, what this involves, a code-symbolism with which to indicate those similarities and differences of factor-types which sanction or veto particular substitutions. But that there is a co-functioning of distinguishable factors in truths and falsehoods and that their functions are not all similar is, I suggest, a thing which Plato is here clearly realising.

The 'Sophist'

This dialogue begins with an attempt to arrive at a clear definition of what constitutes a Sophist. Its method is that of dichotomous division. Some highly generic concept, which is assumed without proof to be the correct one, is divided into two species, one of these is then similarly divided into two sub-species, and so on until a point is reached where the concept under enquiry is seen to be such and such a sub-sub-species of the

original genus. Many commentators regard this method of Dichotomous Division as a grand discovery of Plato, and some even identify it with the Method of Dialectic for which Plato makes his famous claims. It is clear to me that the Method of Dialectic as this is described in outline in the *Republic* and in detail in the *Parmenides* and the later parts of the *Sophist*, and is actually exercised in the second part of the *Parmenides*, has almost nothing to do with the Method of Division. The Method of Dialectic has links with Zeno's antinomian operations, or it may just be an expansion of them; but this process of Dichotomous Division is an operation of quite a different sort. In particular, it is not a process of *demonstration*, as Aristotle points out.[7]

Whether Plato did or did not believe that the Method of Division was a powerful philosophic instrument, we can be quite clear that it is not so. No philosopher, including Plato, has ever tried to employ it for the resolution of any serious philosophical problem, and if they had done so they would not have succeeded. For first of all it can only be applied to concepts of the genus-species or determinable-determinate sort, and it is not concepts of this sort that in general, if ever, engender philosophical problems. And, next, most generic concepts do not sub-divide into just two polarly opposed species; usually there are numerous species of a genus or sub-species of a species.[8] And the question whether a sort divides into two or seventeen sub-sorts is, in general, a purely empirical question. So nearly any case of a philosopher's operation by Division could be upset by the subsequent empirical discovery of sorts lying on neither side of the philosopher's boundary lines. And, finally, there is room for almost any amount of arbitrariness in the selection from the ladders of sorts *en route* for the definition of a given concept. Except in artificial hierarchies, such as library catalogues and regimental ranks, there are few, if any, rigid scales of kinds. So there are many tolerable and no perfect ways of defining most of the sort-concepts that we employ.

Had Plato wished to exhibit these and kindred blemishes in the programme of definition by Dichotomous Division, he could have chosen no more effective procedure than that of exhibiting several definitions of one and the same concept, all achieved by descending different scales of kinds. And this is what in fact he does. He gives six or seven different definitions

[7] In *Prior Analytics*, 46a, *Posterior Analytics*, 91b and 96b.

[8] Cf. Aristotle's criticism of the programme of dichotomous division, *De Part. An.* 642.

of 'sophist', all arrived at by different paths. However, he does not say that he is revealing defects in the method, and the subsequent dialogue, the *Politicus*, is another exercise in it; so some of his commentators may be right in believing that Plato thought well of its potentialities.

However, there is a pair of concepts which are forced upon our notice in the course of the operations which turn out to require a very different sort of elucidation, namely those of non-existence and existence. For a Sophist is a pretender who either thinks or says that what is not so is so. The puzzle which arose in the *Theaetetus* arises again here. How can what does not exist be named, described or thought of? And if it cannot, how can we or Sophists talk or think of it, falsely, as existing? So the question is squarely put: What does it mean to assert or deny existence of something?

What do Pluralists *or* Monists mean when they assert that there exist a lot of things or that there exists only one thing? What do materialists *or* idealists mean when they assert or deny that bodies or that Forms are real?

Now, it is of the first importance for our main question to notice certain points. (1) With reference to Parmenidean Monism it is shown that the concepts of Unity and Existence interlock in an important way, without being identical. And part of the argumentation of the *Parmenides* is echoed here upon just this matter. (2) No attempt is made to elucidate the concepts of existence and non-existence by the Method of Division. The heroic attempt of Meinong to show that they are co-ordinate species of a generic concept is not anticipated by Plato. And we can see—so perhaps Plato saw—that the Method would not work just because these concepts are *not* sort-concepts, but that there is an important difference between sort-concepts and these two which is the source of the inapplicability of the Method of Division to them. (3) There are some other concepts, identity, otherness, change and changelessless which have to be operated upon alongside of existence and non-existence. (4) The procedure of investigating the interrelations of these concepts is called Dialectic—which, I think, is only remotely connected with the operation of tracing out sort-hierarchies which is called Division.

Now in attempting to elucidate the concepts of existence and non-existence, Plato makes use of two analogies, one of which he had used in the *Theaetetus*. Namely, he compares the ways in which some concepts will combine in only certain ways with certain others (*a*) to the ways in which letters will only admit of certain sorts of alliances so as to form syllables,

and later (*b*) to the ways in which words will admit only of certain sorts of alliances so as to form sentences.

For a syllable to be constituted vowels must be there as well as consonants, and for a sentence to be constituted a noun must be conjoined with a verb and not a noun with a noun or a verb with a verb. If we like to build metaphors from these analogies we can say that some, but not all, concepts must be 'vowel'-concepts, or that some, but not all, concepts must be 'syntax'-concepts as opposed to 'vocabulary'-concepts. And existence and non-existence are of these new types.

It is further indicated (253, 259, 260b) that these two concepts of existence and non-existence, together with certain others which are associated with them, namely changes and changelessness, otherness and identity, are in an important way pervasive—they crop up, that is, in all the Division-scales in which we locate other concepts, in the same sort of way, I take it, as 'non-existence' cropped up in one of the definitions of 'sophist'. We are reminded of Aristotle's assertion that Existence and Unity and Goodness belong to no one of the Categories but pervade them all, though his Categories are not, of course, Summa Genera.

There appears, then, to be quite good internal evidence in the *Sophist* for the view that Plato was now discerning an important difference between types of concepts or universals, and in particular that concepts of sorts, which can be scaled with or without precision in hierarchies of genera, species and sub-species, obey very different rules from some others, like existence and non-existence. And the concepts of this latter class perform what I may call a logical role which is analogous to the role of vowels in syllables or that of syntax-rules in sentences. They function not like the bricks but like the arrangement of the bricks in a building.

Now the interesting thing is that it is true that existence and non-existence are what we should call 'formal concepts', and further that if modern logicians were asked to describe the way in which formal concepts differ from proper or material or content-concepts, their method of exhibiting the role of formal concepts would be similar to that adopted here by Plato. But we need not go further than to say that Plato was becoming aware of some important differences of type between concepts. There is no evidence of his anticipating Aristotle's enquiry into the principles of inference, which enquiry it is which first renders the antithesis of formal and other concepts the dominant consideration. There is, consequently, in Plato, no essay at abstracting the formal from

the contentual features of propositions, and so no code-symbolisation for the formal in abstraction from the material features of propositions.

There is, of course, always a considerable hazard in attempting to elucidate a doctrine of an earlier philosopher in the light of subsequent and especially of contemporary doctrines. It is always tempting and often easy to read palatable lessons between the lines of some respected but inexplicit Scripture. But the opposite policy of trying to chart the drift of some adolescent theory without reference to the progress of any more adult theories is subject not to the risk but to the certainty of failure. We cannot even state what was a philosopher's puzzle, much less what was the direction or efficacy of his attempt to solve it, unless subsequent reflections have thrown a clearer light upon the matter than he was able to do. Whether a commentator has found such a light or only a will-of-the-wisp is always debatable and often very well worth debating.

Thus I may be wrong in believing that there are affinities between Plato's enquiries in these dialogues and Hume's and Kant's accounts of assertions of existence, Kant's account of forms of judgement and categories, Russell's doctrine of propositional functions and theory of types, and, perhaps, more than any other, nearly the whole of Wittgenstein's *Tractatus Logico-Philosophicus*. I may be wrong in construing these dialogues as, so to speak, forecasting most of the logical embarrassments into which the infinitely courageous and pertinacious Meinong was to fall. But at least my error, if it is one, does not imply that Plato's puzzles were so factitious or ephemeral that no other serious philosopher has ever experienced any perplexity about them.

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REVIEW OF F. M. CORNFORD: 'PLATO AND PARMENIDES'

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In his new book Professor Cornford tackles the long-vexed question of the interpretation of Plato's baffling dialogue, the *Parmenides*. It will be welcomed by all students of Greek thought on many scores, but above all because it not merely suggests a quite plausible construction of the dialogue, but supports it by a detailed analysis of the intricate stages of its argument.

In the first sixty pages of the book, Professor Cornford brings together all that is known or can reasonably be conjectured about the Pythagorean cosmogony and about Parmenides' own 'Way of Truth', together with an examination of the historical setting and bearings of Zeno's famous dialectical operations. These chapters are valuable in themselves and especially useful for showing in what ways problems close to the heart of the dialogue, which seems so strained and arid to us, were very much burning questions in Plato's time.

When he comes to the *Parmenides* itself, Professor Cornford adopts the method which he has employed elsewhere, of giving a translation of the dialogue interspersed with exegesis. This ensures that the detail of the arguments is not relegated to semi-oblivion before the discussion of their sources, validity and relevance is entered upon. The lesson and the sermon go hand in hand.

The *general* position taken up is as follows. The dialogue is intended to be a serious discussion of an important problem or tissue of problems. There is in it nothing of the skit which some scholars have professed to find—and to find diverting. Nor, on the other hand, is there any foretaste of a Neoplatonic theology in it. Rather, to use a terminology which could not be pre-Aristotelian, it is a discussion of a *logical* problem or set of problems. And the problem under discussion is one known to and discussed by Aristotle. He recognised its importance and its difficulty; and his answer to it is, anyhow in part, already in Plato's mind, though Plato does not formulate the answer so much as force his hearers and readers towards it by exhibiting the untenability of any more simple-minded position. The logical problem is closely connected both with the very roots of the doctrine of Substantial Forms and with the premisses and conclusions of Parmenidean Monism. And, lastly, it is affiliated to central issues in the adjacent dialogues, the *Theaetetus* and the *Sophist*. All these points seem to me to be true and important and even if there remain, as I think there do remain, certain residual matters where there is room for differences of opinion, the progress already made is notable. For now, at last, the force and the drift of the actual arguments of the dialogue have become discussible. It is no longer a question of decoding an inscription in an unknown tongue, but of debating alternative translations of a clause in a passage from a language of which we are already familiar with both the vocabulary and the grammar.

Professor Cornford's *special* thesis is this, that after showing that there were genuine logical difficulties in the doctrine of separately existing Forms, which he does in the first part of the dialogue, Plato then goes on to give a fully worked out exercise in a particular sort of philosophical method, namely, one the object of which was to show that certain terms, especially 'one', 'existent' and 'non-existent', are the residences of numerous dangerous equivocations. To yield to the natural temptation to treat them as univocal is to slide down a slippery slope into logical absurdities. The early doctrine of separately existing Forms had been subject to this peril, for it had been wont too naïvely to glorify these Forms as being unitary (as against the plurality either of their instances *or* of their constituent Forms which definitions would reveal) and as existent (as against the relative unreality of their instances). But still more deeply involved had been Parmenides' own Monism, since it had asserted that only what was absolutely unitary really existed. 'Unity' and 'Being' came, virtually,

to being alternative proper names for the same thing, and that the only thing. That there are ambiguities in these terms is shown by the procedure, which apes but is not the same as Zeno's *reductio ad absurdum* method, of deducing from *apparently* the same premiss sets of *apparently* conflicting conclusions. What these arguments really show, though Plato leaves this to be understood, is that the premisses from which these apparently conflicting conclusions flow, are not identical, save in diction. 'One' and 'exist' are being used in one sense in one operation, and in another in the next, and so on. So each separate argument is, or is intended to be, valid. And the conclusions do not really conflict, since their premisses have, save verbally, different subjects and predicates. Aristotle often formulates (though without using this method of argumentation) what Plato shows by his argumentation (but does not formulate), when he says that 'one' and 'exist' are 'used in many senses'.

I believe this special thesis to be mistaken; but it is following the wrong scent in the right country and with the right sort of pack. In criticising it with detailed arguments, therefore, I mean it to be clear that I regard the question as being, at last, the proper question. It is because, after too many false starts, the hunt is now nearing its end, that I want to lift the pack off what I think is a false scent.

And in particular, though I dispute Professor Cornford's account of both the goal and the procedure of the dialectic, I know of no discussion which throws anything like so much light as his does upon the meanings, sources and affiliations of the multifarious steps of the whole complex of deductions. And if I concentrate solely upon what I dispute in his thesis, it is because this is the only way that I know of treating it as seriously as it deserves.

My first objection is this. The dialogue begins with a rejoinder by Socrates to a particular specimen of Zeno's *reductio ad absurdum* method. His rejoinder having been shown to contain either fallacies or lacunae, Socrates issues the challenge to be shown that Forms can themselves be proved to be subject to incompatible predicates, i.e. that the *reductio ad absurdum* method can be applied to the hypothesis that there exist Forms. Parmenides urges Socrates to undergo a certain sort of logical discipline before launching out into constructive theories, and the discipline recommended is the practice of the Zenonian *reductio* method, but with a certain expansion. Zeno had, perhaps from polemical motives, torpedoed a given hypothesis by deducing absurdities from it. Socrates is urged to try the

same procedure upon *both* a given hypothesis *and* its negative. And Parmenides is persuaded to give an example of this two-way Zenonian enquiry. Now, unless the whole of this preface is conscious and pointless deception on Plato's part, the second part of the dialogue must (1) be a *reductio ad absurdum* argument; and (2) be an application of it to *one* hypothesis and its negative. The identity of this hypothesis in half the operations and the identity of its negative in the other half must be not merely a delusive identity of diction, but be, or be thought to be, a real identity. And this means that 'one' and 'exist' must be supposed by Plato to be univocal throughout the whole argument.

In corroboration of this, it should be noticed that according to Professor Cornford one, but only one, of the various meanings of the subject-term in all the hypotheses is Unity, the Form or universal, that of which there are or could be instances. But it was only about Forms that Socrates was concerned to discover whether or not there could be produced conflicting predications; and it was only from a collection of Forms that Parmenides selected what was to be the subject of his hypothesis. Indeed the whole preliminary inquest upon Socrates' doctrine of Forms would, I think, have been a complete red-herring if the lengthy remainder of the dialogue was not going, save *per accidens*, to be about Forms at all, but primarily about certain quite different sorts of assumptions resident in Parmenidean Monism. The evidence of Aristotle, I think, really supports this. For whole certainly Aristotle professes—I think unsuccessfully—to resolve certain logical difficulties about 'one' and 'existent' by finding that they have a variety of significations, the various significations which he distinguishes are still different *universals*. It is the various *predicative* uses of these adjectives to which he draws attention, as when he points out that the phrases 'a man', 'a unitary man' and 'an existent man' mean the same thing, which would not be the case with ordinary adjectives.

And, again, when he points out that 'existence' and 'unity' are not co-ordinate species of a genus, and neither is a species of the other, and that an ascription of either entails the ascription of the other, he is noticing that these 'universals' behave in a very different way from the ways in which ordinary universals behave, those, namely, which accept classification as being of this or of that category.

To come more closely to the special point of Professor Cornford's view. He maintains that Plato is compelling the realisation that certain words are ambiguous. Now we should distinguish, as perhaps Aristotle partly does,

between two sorts of ambiguity. There is the uninteresting *local* sort, which I may call 'dictionary-ambiguity', where in a particular language like Greek, a given noise or mark has different and unconnected uses (as 'malo' does in Latin). And this seems to be the sort of ambiguity which Professor Cornford has in mind, for he says that the ambiguities which Plato is revealing are 'owing to certain peculiarities in Greek grammar'. And he admits, what his practice shows, that it is not easy to find in English correspondingly equivocal expressions. On this showing Plato was only trying to show that the Greek language contained some unsuspected founts of puns; though this might be quite a useful if humdrum task, since philosophical theories certainly can be perverted by local ambiguities of this type. Yet to employ so elaborate and systematic a procedure for achieving this end would be like using all the resources of a smithy in order to crack nuts.

But there are ambiguities of another sort, which are, I suspect, nearer to what Aristotle had in mind; and ambiguities of this type can be expected to show themselves similarly in all languages, however different their vocabularies may be. I refer to what are sometimes called 'systematic ambiguities'. An expression undergoes systematic modifications in its significance according to the type of context in which it is used. For example, both 'very' and 'punctual' undergo these modifications in the three assertions: 'You were very punctual for breakfast today', 'You are a very punctual sort of man', and 'Naval officers are a very punctual class'. The first says, 'You arrived almost exactly at breakfast time—and this is unusual'; the second says, 'You are more prone than most people to keep appointments on time'; and the third says, 'Naval officers as a class are more prone than most other classes to be on time for appointments'. And these uses are different, but connected, and connected in the same sort of way as would be the corresponding uses of 'rather irritable' or 'pretty tidy'. That 'very punctual' has different significations here is easy to show. For it would be absurd to say 'You were more punctual for breakfast today than most men are', or 'than the class of naval officers is'. Now, certainly 'one' and 'existing' are subject to systematic ambiguities of this sort, for all expressions are so subject. But even if they are, and even if, what is dubious, this is something like what Aristotle had in mind, it is not the case that all the puzzles about 'unity' and 'existence' would be cleared up by distinguishing between the multifarious context-modifications to which they are liable. For it will still be true that in none of these

distinguishable uses will they behave in the way we expect predicate-expressions to behave, if we are predisposed to expect all predicate-expressions to behave like 'green' or 'punctual' or 'irritable'. They still will not behave like 'ordinary' subjects or predicates. They misbehave if treated like 'ordinary' subjects of attributes or attributes of subjects. To this extent Aristotle's solution was inadequate. For even if these terms are shown to have several roles, yet still these roles are unlike the roles of 'ordinary' words, i.e. those expressing concepts falling under this or that Aristotelian category. However, it could well be that what Aristotle did not see, Plato had not seen either; and that what Aristotle thought, if wrongly, was an adequate clue to the riddle, Plato had thought also, if wrongly, to be an adequate clue.

Next, Professor Cornford admits that it is odd that Parmenides, having promised to produce a dialectical operation having four main stages, should then produce one having in fact eight (or nine) stages. On his showing, these eight (or nine) stages have to be separate, else the first operation, say, would be proving the precise opposite of what the second operation proves, and so on; whereas his interpretation requires that each of the eight or nine movements should be, or be intended to be, a valid argument for a set of true conclusions, in only seeming, because merely verbal, conflict with the results of the other movements. Now he is here maintaining two different, though connected, positions. (1) First he is denying that the second part of the dialogue is what had been promised in the first part and what seems from the wording and the arrangement of the deductions to be fulfilled, namely, a quadrupedal *reductio ad absurdum* argument, each quarter of which consists of two 'claws' such that the conclusions of the one are the direct antitheses of those of its counterpart. We were promised and seem to have been given a series of pairs of arguments, of which the former establishes the possession by a given subject of both and the second establishes its possession of neither out of several couples of opposite predicates. According to Professor Cornford, no such antinomies are really produced or intended to be believed to be produced. The semblance of the contradictions is intended only to advertise the plurality of meanings of the original premisses. (2) But this involves him in denying something further. Plato *seems* to have exhibited not only contradictions between the several conclusions of one 'claw' and the corresponding conclusions of its counterpart 'claw', but also contradictions in each 'claw' taken by itself. For it looks as if it is

self-contradictory to ascribe both of two antithetical predicates to a subject, and also self-contradictory to deny both of a disjunction of antithetical predicates to it.

For if we take a pair of opposite predicates, say 'male' and 'female', *if a given subject has a sex at all*, then it seems absurd to say either that it has both sexes or that it has neither. Now most subjects have, of course, no sex, so to deny that they have either is true and not absurd. But there seem to be some high-level disjunctive pairs of predicates, of which we think that one *or* the other (not both and also not neither) must characterise any subject you please. And just these are the sorts of predicate-couples with which Plato is working. He is, in some cases, I think, mistaken in thinking that the option 'neither-heads-nor-tails' is ruled out; and in others he is, I think, mistaken in thinking that the option 'both-heads-and-tails' is ruled out. But in general it seems to me that the complex conclusion of each of the eight movements is logically impossible on its own account, besides being controverted by the directly opposite conclusion of its counterpart movement.

But if this is so, then Professor Cornford's position is impossible. For in his view each movement is a valid argument for a set of *true* conclusions, and the semblance of logical absurdity only arises from the naïve belief in the univocality of, particularly, the subject-word in the conclusions of the different movements *vis-à-vis* each other. And obviously the conclusions of a single movement cannot all be true *and* in contradiction with each other. So Professor Cornford tries to show that the seeming contradictoriness between the parts of the conclusion of each movement taken by itself is also unreal. And this he does by discerning (between the lines) the frequent interpolations of new quasi-definitions demarcating new distinctions of meaning of the terms involved. Thus he tries to show that in no case is one and the same subject either asserted to have both or denied to have either of two contrary predicates. The contrariness of the predicates is what establishes the real non-identity of the subjects to which they are severally ascribed or denied. He has to speak of 'definitions disguised as deductions', and has to find such a disguised definition wherever the argument seems to establish a both-heads-and-tails or a neither-heads-nor-tails conclusion—and that is in nearly every link of the chain of deductions. I shall content myself with saying that I do not think him successful—and not *only* because I think him mistaken in denying that the total argument is intended to be a grand *reductio ad absurdum*.

One last point. Professor Cornford is continually forced to translate certain Greek expressions by such English phrases as 'a one being', 'the One Being', 'one-entities', and so on. Now it is important to notice that *except for translation purposes* no one would ever dream of using these phrases either in colloquial or in philosophical discourse. The child in the nursery would wriggle and feel inarticulately that something had gone wrong with the works of the speech of anyone who talked in these ways. But why cannot these phrases be used? The grammar is normal, for 'one' is a familiar adjective, and 'being' is a common substantive, and 'entity' an established pedantic one. So why does the total phrase 'a one being' cause us any more discomfort than, say, 'a wise man'? And the answer, which the child would feel but could not articulate, is that 'one' does not signify an attribute as 'wise' does; and that 'being' does not stand for a sort or kind as 'man' does. Now Professor Cornford, like many philosophers, does think, for he repeatedly says, that 'one' and 'existent' do signify attributes. And he even thinks, as Meinong and the early Russell did, that being an entity or being is an attribute which is possessed by some objects which nevertheless lack the specific attribute of existing. Else how could negative existence-propositions be significant? There must *be* something, for us to be able to say of it that it does not exist. Consequently the phrases, 'a one being' and 'the one-entities', *ought* to be just as proper expressions as 'a wise man' or 'the ingenious Eleatics'. But they are not proper expressions, and they are not so for the reason that the roles of 'one', 'existent', 'being', and some others are different from the roles of attribute-words and sort-words. And it is just these differences of role which generated the puzzles which Aristotle was alive to, though I do not think he solved them. And, I urge, it is just these differences of which Plato was becoming aware in the *Parmenides*, the *Theaetetus* and the *Sophist*. The puzzles are not peculiar to one language or epoch; they can be found, for example, still unsolved and still central, in Russell's *Principles of Mathematics*.

I suggest, therefore, that while Professor Cornford is completely right in holding that Plato is, in this and the adjacent dialogues, concerned with genuine problems and problems of the sort which we should describe as 'logical', and completely right, again, in holding that these problems are identical with those to which Aristotle continually recurs, he has failed to put his finger upon just what these problems were, because he has not himself realised that or how the concepts of unity, existence and non-existence refuse to behave like ordinary attribute-concepts and

kind-concepts. He has not *felt* the paradoxes which, in my view, are the nerves of the *Parmenides* and the *Sophist*.

To clinch the issue—and that the issue can be clinched itself shows that the problem of the interpretation of the *Parmenides* is at last becoming definite—I lay down the following theses. The second part of the dialogue is or is intended to be a *reductio ad absurdum* argument. The two propositions to which it is applied, namely, *Unity exists* and *Unity does not exist*, are intended to be univocal. There are four main operations in the argument, and each operation has two 'claws'; and the two 'claws' of each operation are intended to demonstrate antithetical conclusions. And the conclusions of each 'claw', taken by itself, constitute, for the most part, logically impossible conjunctions. The subject of the hypotheses is a Form or 'universal'. The purpose of the second part of the dialogue is to show that some presupposition of the theory of Forms contains a radical logical flow. And the argument is successful.

I do not claim that there remain no difficulties. For example, it is difficult to explain why the argument is put into the mouth of Parmenides, especially if, as I think, the general course of the argument is, while closely relevant to the theory of Forms, not very closely relevant to Monism, save in so far as this doctrine did depend upon special and illegitimate inferences from the natures of the concepts of unity and existence. Then there are plenty of places in the argument where logical tricks are played with other concepts than unity and existence; for example, with the concepts of similarity, dissimilarity, identity, otherness, change, time and so on. Doubtless the expansion of these absurdity-producing operations would reveal important truths about the logical roles of these concepts, but the introduction of them into the specific inquest upon unity and existence does leave the impression that we are losing both the bone and the shadow.

And, finally, I suspect that Professor Cornford is right in detecting in a lot of the turns and twists of the argument of the second part of the dialogue echoes of special controversies about the foundations of arithmetic and geometry; and this would indicate that the concept of unity demanded investigation, not only because of its cardinal position in the theory of Forms and, perhaps, in Monism, but also because of its connection with the notion of arithmetical units and with the general question of what it is that numbers characterise or belong to (which is also Russell's problem in the *Principles of Mathematics*). And if questions of this special sort

are dominant and not merely interjected, the problem of what the whole *reductio ad absurdum* argument is intended to reveal will become a lot more complicated. It will mean that Plato is attending not just to the logic of predication but also to that of counting, measuring and calculating. However, at present, I am disposed, though with qualms, to believe that these special questions are not dominant here. They do not seem to control the arguments of the *Theaetetus* or the *Sophist*.

3

LETTERS AND SYLLABLES IN PLATO

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In his later dialogues Plato makes a lot of use of the notions of letters of the alphabet and the spelling of syllables out of these letters. He frequently uses these notions for the sake of analogies which help him to expound some more abstract matters.

There is one of his uses of the letter-syllable model which is not of special interest to me, namely, for the exposition of some merely chemical theories about the combinations of a few material elements into multifarious compounds. Plato employs this model in this way in the *Timaeus* (48B–C), though he says that the analogy is not a good one. Here he is stating what is essentially an Empedoclean theory. Sextus Empiricus says that *stoicheion*, used thus to denote an ultimate material element, was a Pythagorean term.

My interest is in Plato's use of the alphabet model in expounding his logical or semantic views, namely his views about the composition of the thoughts, that is, the truths and falsehoods that we express or can express in sentences (*logoi*).

I. LETTERS

First, I have to make a dull but necessary distinction. When we run through the alphabet viva voce we produce the *names* of letters, that is,

made-up words like 'Alpha', 'Queue', 'Double-U', 'Ess', 'Omega', 'Aitch' and so forth. If, on the other hand, we have to write out the alphabet, we write the letters themselves and not their names. We inscribe the character 'H'; we do not inscribe the five characters of its English name, 'a-i-t-c-h'. The word 'Double-U' is a trisyllabic name of a letter which is not itself a trisyllable or even a monosyllable. The word 'Queue' rhymes with the word 'few', but the letter that it is the name of does not rhyme with anything. The American proper name 'Zee', the English proper name 'Zed' and the Greek proper name 'Zeta' are three names for the same letter. These letter names are just as much words as are the names of people, dogs or days of the week. Plato discusses the names of letters in the *Cratylus* (393).

Well, then, what *is* the letter of which the proper name 'Zed', say, is the English name? Is it (1) the zigzag character that we inscribe at the beginning of the written word 'zebra', or (2) the semi-sibilant beginning of the uttered dissyllable 'zebra', or (3) both that zigzag character and that semi-sibilant consonant? It will turn out to be crucially important to consider whether, when Plato refers to the particular letter of which the word 'Beta', say, is the name, he is thinking primarily of a noise or primarily of a character; whether, for example, he is thinking of the beginning of the noise 'Basileus', or thinking of the left-hand-most character in the written word 'Basileus'. We nowadays naturally think first of a printed or written character. I hope to show that Plato, on the other hand, naturally thought first of the explosive beginning of uttered words like 'Basileus', that is, that the letter names like 'Beta' and 'Sigma' were, for him, names primarily of phonetic elements or phonemes. So when Plato speaks of a child learning the letters called 'Beta' and 'Sigma', he is not, according to me, thinking first of all, as we should be, of the child being taught to inscribe and decipher characters, but of him learning to recognise by ear, name and pronounce the consonants and vowels.

Platonic Greek had two words for 'letter', namely *gramma* and *stoicheion*. Sextus Empiricus, in *Against the Grammarians* (99), says that *stoicheion* may mean (1) a character; (2) the phonetic element that a character stands for; or (3) the name of the letter, for example, the word 'Beta'. It is the phonetic element that is accounted by the grammarians the *stoicheion* proper. Sextus Empiricus himself avoids using *gramma* for a phonetic element or *stoicheion* for a character.

The sole philological use of *stoicheion* given by Aristotle in *Metaphysics* Δ

(1014a) is that of 'phonetic element'—as is that given in the '*Platonic*' *Definitions* (414E)—and Aristotle sticks to this in his own practice with only rare exceptions, for example, in *De Soph. Elench.* (177b) and in *Metaphysics* (1035a). Correspondingly, a *gramma* is for Aristotle a character and hardly ever, if ever, a phoneme, though in *Problems* (10, 90, and 11, 30 and 57) we hear of people who lisp being unable to utter certain *grammata* and of animals that can utter just a few *grammata*, among the other noises they make.

I hope to show (*a*) that Plato uses *stoicheion* nearly uniformly for 'phonetic element', though in the *Theaetetus* (206A) *stoicheia* are both things uttered and things written; (*b*) that Plato uses *grammata* quite impartially for phonetic elements and for characters. *Gramma*, despite its etymology, did not for Plato connote writing. *Grammata* are, of course, written characters in the *Republic* (368 and 402) and in the *Phaedrus* (274–5), where Plato also, for once, uses *typos*. Unlike Sextus Empiricus, he and Aristotle never use the ambiguity-removing word 'character'. 'Syllable' is regularly used as a phonetic term by Plato, Aristotle and Sextus Empiricus for the minimum pronounceable. Consequently letters, when mentioned as elements of such pronounced syllables, have to be audible consonants and vowels and cannot possibly be characters.

Plato says a good deal in the *Cratylus* (especially 424–7, 434–5) about the phonetics of letters and syllables, but it is especially in the *Theaetetus* and *Sophist*, and more cursorily in the *Politicus*, that he makes philosophical use of the model of letters and their combinations in syllables. He uses it in the *Theaetetus* in order to throw light on the differences between what is said in a sentence (*logos*) and what is named by a separate word, between a truth-or-falsehood and a named thing, between a proposition and a term, and between what we can know or believe and what we can see or touch.

In the *Sophist* he uses the alphabet model for a more abstract task. He emphasizes the differences between vowels and consonants and the necessity for at least one vowel being present to enable consonants to combine together. By means of this analogy he tries to show at least this, that some Forms are unlike the rest in being vowel-like, that is, in being necessary for the combining of terms into truths and falsehoods. I think he has in mind here those notions which are expressed (*a*) by verbs as distinct from nouns and adjectives and (*b*) by certain radical verbs such as the verbs 'to be' and 'to become', in distinction from all other verbs.

This brings us to the important ambiguity that I have mentioned in all

that Plato says about letters and syllables. Is he, as I formerly took for granted and as the commentators whom I have consulted take for granted, referring only or primarily to written characters and written syllables, or is he, as I now think, referring only or primarily to the uttered consonants and vowels in uttered syllables? Or is he referring indiscriminately to both? For example, to take the three letters of the English monosyllabic word 'box', is Plato thinking only or primarily of the three characters written left to right, of which the second is nearly circular and the third consists of two straight lines cutting one another at something less than a right angle? Or is he thinking only or primarily of what these three written letters stand for in the realm of pronounced noises, that is, of what the monosyllable 'box' sounds like? The reason why it is important to clear this matter up is this. There are some very important differences between what can be said about inscribed characters and what can be said about the phonemes or noise elements that they stand for, and these differences make all the difference to our interpretation of the doctrine which Plato uses the alphabet model to expound. The written word 'box' contains three parts or components, namely, the 'b' and 'o' and 'x', any one of which could survive when the other two were deleted. We could write these characters down at different times, on separate bits of paper, and then paste the pieces together in one order, take them apart again, rejoin them in a new order, and so on. Characters are separate inscribables; they can be separately read; and they can be combined in any order or left uncombined. But what, in the phonetic field, the three characters stand for could not be similarly separated or shuffled. We could not make a noise at all answering to the sequence of the three characters 'OXB'.

More than that; while we could indeed pronounce by itself the vowel-noise answering to the character 'o', we could not pronounce by themselves separate noises answering to 'b' and 'x', though we might do so for a few hissable or hummable consonants like 's', 'r', 'm' and 'l'. In short, most separately inscribable characters of the written alphabet do not stand for separately pronounceable noises, and these were known to Plato by the technical terms *aphona* and *aphthogga*, that is, 'mutes'. These are not sounds but only *con*sonants. The uttered monosyllable 'box' is one noise, a monosyllable and not a trisyllable. It is not a sequence of a 'b' noise and an 'o' noise and an 'x' noise. There are no such noises as 'b' and 'x', and if there were, the sequence of them would not be the monosyllable 'box' but a trisyllable. Certainly the uttered monosyllable 'cox' differs

audibly in one respect from the monosyllable 'box', though resembling it in two respects, but the audible difference does not consist in the monosyllables being made up out of different and separately pronounceable component noises. We cannot therefore say that the vowel 'o' enables us to co-utter the consonant noises 'b' and 'x', since there are no consonant noises 'b' and 'x' to be uttered by themselves at all. We cannot speak of the vowel as linking some components that could exist without that linkage. A spoken monosyllable is not a phonetic molecule of which its consonants and vowels are the atoms. In short, while characters are graphic atoms, phonemes are not phonetic atoms. Chinese writing and 'Linear B' do not contain even graphic atoms.

We have to say instead that what the characters 'b' and 'x', say, stand for are ways or respects in which one monosyllable may resemble other monosyllables, though not resembling them in other respects; they stand for distinguishable aspects or features of integral noises but not for integral noises. Borrowing from Frege, we might say that the phonetic element for which the character 'b' stands could and, for certain purposes, should be graphically symbolized not just by 'b', but by 'b . . .' or '. . . b' or '. . . b . . .', where, with qualifications, the gaps are vacancies to be tenanted by some vowel character or other, no matter which; and ditto for 'x' and 'q' and any other consonant; and for that matter, *mutatis mutandis*, ditto for vowels too, save that the gaps flanking them could be flagged as optional.

I bring this point out at once, because the phonetic model of letters and syllables would be an almost perfect model by means of which to express Frege's difficult but crucial point that the unitary something that is *said* in a sentence or the unitary sense that it expresses is not an assemblage of detachable sense atoms, that is, if parts enjoying separate existence and separate thinkability, and yet that one truth or falsehood may have discernible, countable and classifiable similarities to and dissimilarities from other truths and falsehoods. Word meanings or concepts are not proposition components but propositional differences. They are distinguishables, not detachables; abstractables, not extractables—as are the audible contributions made to the voiced monosyllable 'box' by the consonants 'b' and 'x'.

But did Plato mean us to construe his model in phonetic terms? Prima facie the answer is 'no'. If he had meant this, he would surely have told us that he was talking phonetics and not graphology. The few commentators

whom I have read have assumed that Plato is talking about characters and collocations of characters and have not even mentioned the alternative possibility. On the other hand, there are things which Plato says which cumulatively point so strongly in the affirmative direction that I think 'yes' is the right answer. I also hope that it is, since the semantic view which results is both true and important. So now for the evidence.

(1) In the *Theaetetus* (from 202E) after expounding his 'dream' in which simples, that is, elementary or atomic namables, are contrasted with the complexes which entire sentences (*logoi*) express, Socrates goes very thoroughly into two main kinds of complexes, those which are pure pluralities or totalities and those which are organic unities. He suggests that syllables may be of this latter kind. If so, then a syllable cannot have letters for its parts; indeed it cannot be divided up into parts at all. Now this, as we have seen, is perfectly true of monosyllabic noises, but it is totally false of their written symbolizations in Greek or English script. Socrates does not commit himself to this view, but at least Plato was explicitly considering the idea that uttered monosyllables do not have parts. Next, quite shortly before this passage, Theaetetus had been asked how he would break up the first syllable of the word 'Socrates', and he naturally replies, 'Into "s" and "o".' Then when asked how the 's' can be broken up, he says, ' "s" is one of the consonants (*aphonon*) nothing but a noise, like a hissing of the tongue; while "b" not only has no articulate sound, but is not even a noise (*oute phone oute psophos*); and the same is true of most of the letters.'

Here, then, Plato is certainly talking phonetics and not graphology; he sees that to most of the consonant characters no separately pronounceable noises correspond and he considers whether a syllable is a plurality of separately utterable parts, or is an organic unity, not divisible into parts. The letters that he is talking about are not characters but elements of voiced syllables. He uses *stoicheion* and *gramma* interchangeably for these phonetic elements.

Two pages later (207D) Plato, discussing the learning of spelling, says that a child who writes down the correct characters for the first syllable of 'Theaetetus', but then writes down incorrect characters for the first syllable of 'Theodorus', does not really know (the spelling of) that shared syllable. He got the first one right without knowledge. But Plato does not consider the possibility that the child might, when examined viva voce, have sung out 'theta epsilon' perfectly correctly for the first two phonemes

of both names, while still being muddled about what character to write down for theta. He might, that is, know the spelling without yet knowing his characters. When shown the mark θ he might have said first, 'That is tau,' later on, 'That is theta.' The point is only of importance in that it shows that Plato could confuse knowing what phonetic element a given letter name designates with knowing what written character symbolises a given phonetic element. The ambiguity of 'letter' was not fully realised by him.

(2) In the *Sophist* (253A), after some talk about the blendings and non-blendings of Forms, the Eleatic Stranger says, 'They might be said to be in the same case with the letters of the alphabet (*grammata*). Some of these cannot be conjoined, others will fit together. . . . And the vowels are specially good at combination, a sort of bond (*desmos*) pervading them all, so that without a vowel the others cannot be fitted together.' Now so far as this passage by itself goes, Plato might be saying one of two quite different things. (*a*) The rules of Greek orthography forbid you to run consonant characters side by side in certain collocations on the page, without some vowel character or other going next to or between them. (*b*) It is phonetically impossible to pronounce even a monosyllable without pronouncing at least one vowel. Plato unquestionably meant the second.

Later on (261D), he says, 'Remembering what we said about Forms and letters, let us consider words in the same way.' He goes on to distinguish nouns from verbs, and to show that a statement or sentence cannot be a string just of nouns or just of verbs. It must, at the least, marry one verb with one noun. I think Plato means us to think of verbs as the *analogon* to vowels, and to think of nouns, and so forth, as the *analogon* to consonants.

What I vainly wish he had said explicitly is this. Vowel characters correspond to verbs, but the vowels that these vowel characters stand for correspond to what verbs mean, that is, to what they contribute to statements. Similarly, consonant characters correspond to nouns, and so forth, but the consonants that these characters stand for correspond to what nouns and so forth mean, that is, to what they contribute to statements. As the atoms of writing do not stand for atoms of noise, so the atoms of speech do not stand for atoms of meaning. Conversely, as an atom of writing—a character—does stand for a respect in which one uttered monosyllable may resemble other monosyllables, while differing from them in other respects; so an atom of speech—a word—does stand for a respect in

which one statable truth or falsehood may resemble others, while differing from them in other respects.

To put this point in another idiom: what characters stand for are not noises but noise functions, that is, abstractable noise features or noise differences. We learn what they stand for not by meeting them on their own, since they are not there to meet on their own, but only by comparing partly similar, partly dissimilar, integral monosyllables which we do hear and pronounce on their own. Similarly, what isolated words convey are not atomic thoughts, but propositional functions, that is, abstractable thought features or thought differences. We learn what they convey not by apprehending their meanings on their own, but only by comparing partly similar, partly dissimilar, integral truths and falsehoods. In both cases abstraction is possible, extraction impossible and the abstracting requires noticing the constancy of something through ranges of variations in its settings.

(3) There is an important passage in the *Politicus* (277E–D), in which the Eleatic Stranger discusses the teaching and the learning of letters, in order thereby to formulate a philosophical thesis concerning our knowledge of the elements of reality. He reminds his hearers of the way in which a child, who is just beginning to recognise certain letters in the shortest and easiest syllables, may still be puzzled or muddled about those same letters when incorporated in other syllables. For example—this is my example—the child may recognise and name correctly the letter 'r' as this occurs in 'roy' and 'rat', and yet fail to identify the letter 'r' as this occurs in 'cry'. To get him beyond this point, he has to be got to compare the syllables 'roy' and 'rat', say, which he has got right, with lots and lots of other syllables, including 'cry', which still baffle him; thus he learns to recognise the letter 'r' not just in one or two but in all possible juxtapositions with other letters where it is constant and the rest are varied.

Once more Plato's vocabulary leaves it quite open whether he is thinking of a child learning to read and write his characters or of a child learning to distinguish and label phonetic similarities and dissimilarities. But here Plato must be thinking of the latter and not of the former, since what he says would be a patent falsehood if he were talking about characters. For a child to master the character 'r', say, he would normally be drilled in writing this character down, by itself, again and again, and in naming the character correctly when it was pointed out to him by itself on

paper. The character 'r' is a graphic atom which can be produced and encountered by itself. It can therefore be and usually is in fact learned by itself, without the confusing proximity of neighbours. It is just because this is not the case with the phonetic value of the character 'r', that is, the consonant 'r', that the child can master the noise difference that the character 'r' stands for only by comparing lots of entire uttered syllables in which what 'r' stands for is constant and all the rest is varied. There is no question here of his first uttering and hearing the noise 'r' by itself and then going on to collocate it and recognise collocations of it with other noises. For the character 'r' does not stand for a noise but only for a common feature of a range of otherwise different monosyllabic noises. Being incapable of extraction it can be learned only by abstraction. This passage in the *Politicus* is explicitly linked to the passage in the *Theaetetus* in which Plato had discussed the knowability of simples and complexes. This contrast of simples and complexes was connected with the contrast between what is expressed by individual words and what is expressed by complete sentences. So we have in this passage a good warrant for saying that Plato did realise that word meanings stand to sentence meanings not at all as characters stand to written syllables but as phonemes stand to uttered syllables.

It still puzzles me why Plato did not bluntly tell us that he was describing not how the child learns to read and write his characters, but only how he learns to discriminate by ear and with his tongue the phonetic values of the letters of the alphabet, i.e. the audible vowels and consonants. Can it be that Greek children were introduced to writing only quite a long time after they had learned to distinguish and name the phonemes into which spoken syllables are analysed?

(4) In the *Philebus* (17A–B), we are given another account of the learning of letters. Socrates, in expounding the notions of *Peras* and *Apeiron*, says, 'Surely my meaning is made clear in the letters of the alphabet which you were taught as a child; so learn it from them. . . . Sound (*phone*) which passes out through the mouth of each and all of us is one and yet again it is infinite in number. . . . And one of us is no wiser than the other for knowing that it is infinite or that it is one; but that which makes each of us a grammarian is the knowledge of the number and nature of sounds.' Here Socrates equates the learning of letters with the acquisition of phonetic expertness. Nothing whatsoever is said about marks inscribed on papyrus or wax tablets. A little later (18B–C) Socrates credits the Egyptian

wizard Theuth with the systematic discrimination first of the vowels from one another and then of the vowels from other vocal noises which were not quite vowels and yet could be sounded, that is, noises like 'ssss' and 'mmmm', I suppose; and these, too, he discriminated from one another. Both these classes he discriminated from the mutes, that is, from most of the consonants, which he then discriminated from one another. He called each and all of them 'letters' (*stoicheia*). Then, 'Perceiving, however, that none of us could learn any one of them alone, by itself, without learning them all and considering that this was a common bond which made them in a way all one, he assigned to them all a single science (*techne*) and called it grammar.' Aristotle gives a very similar classification in *Poetics* 20.

Here too nothing is said about letters (*grammata* or *stoicheia*) being things written or read. They are vowels or mutes or else semi-vowels. Theuth had classified pronounceables, not inscribables. So when Socrates says that Theuth perceived 'that none of us could learn any one of them alone by itself, without learning them all' he is not saying what would obviously be false, that a child could not learn to write and read six characters of the alphabet without learning to write and read the other twenty. He is saying what is true, that the child does not really know either the consonant 'b' or the consonant 'd' if he cannot *inter alia* distinguish by ear and tongue 'bog' from 'dog', 'cab' from 'cad', and so forth.

(5) The *Cratylus* is a thoroughly philological dialogue and in the course of it a good deal is said in several places about letters. On most occasions the letters are described in purely phonetic terms; we hear how the breath is expelled or checked in the pronunciation of them, what the tongue and the lips do. An onomatopoeic theory is built up according to which letters (*grammata* or *stoicheia*) sound like things or happenings and so qualify to function as their names. There is, I think, no passage in this dialogue in which a letter name like 'Alpha' or 'Sigma' is the name of a character.

In sum, then, I maintain that Plato regularly thinks of letters not as things written and read, but as things pronounced and heard. 'Syllable' is, for Plato, as for Aristotle and Sextus Empiricus, a regular phonetic term, and when letters are mentioned in association with syllables, they are in these contexts phonetic elements and not characters, no matter whether they are called *grammata* or *stoicheia*.

II. VERBS

I shall now take it as established that Plato's model of letters and syllables was the phonetic model. What did Plato intend to explicate by means of this model? I canalise my answers to this question through a discussion of Plato's treatment of live verbs. I mean by 'live verbs' expressions like 'assassinated', 'believes' and 'will wake up', not verbal nouns like 'assassination', 'belief', 'waking' or 'wakefulness', and not participles like 'walking' or 'bereaved'. Incidentally, it has been maintained that Plato, when he uses the word *rhema*, does not restrict himself to what we call verbs, like 'assassinated' and 'will wake up', but includes also complete predicating phrases like 'assassinated Caesar' or 'was a snub-nosed philosopher' or 'believed that the earth is flat'. I think the evidence points in the other direction; but I do not mind. It will not matter for the points that I wish to make.

Plato, in the *Sophist* (261D), links what he has to say about verbs and nouns to what he had said about vowels and consonants; and I think, though I may be co-operating here, that Plato means us to liken the role of verbs in sentences to the role of vowels in syllables. A vowel supplies a syllable in which it occurs with its breath and so collects the consonants with itself into a unitary utterance. A verb supplies the sentence in which it occurs with its asserting force and so collects the nouns and other parts of speech with itself into the telling of a unitary truth or falsehood.

For an assertion to occur there must, at the least, be someone or something of whom or which something is asserted, and there must be something which is asserted of that subject. A sentence conveying an assertion must, that is, marry a nominative expression with a live verb—somewhat as in a syllable a consonant must be married to a vowel. A string of nouns say nothing, nor does a string of verbs, nor a noun by itself or a verb by itself. Plato does not pause to make allowances for one-word sentences like 'Badizo'. Plato is perfectly clear that a sentence, though consisting of two or more words, says just one thing, true or false. Saying one thing in two words is not to be equated with mentioning-by-name two things. He distinguishes saying from naming in the *Theaetetus* (202) and in the *Sophist* (262). He sees, that is, that the live verb 'flies' in the two-word sentence 'Theaetetus flies' does not do the sort of thing that the name 'Theaetetus' does (for example, mention someone); it does the asserting of something *about* Theaetetus without which we should not

have a truth or falsehood about Theaetetus. Further, Plato sees that, given the sentence 'Theaetetus flies', we may replace the verb 'flies' with some other verb, and another true or false sentence will result—much as the consonant 'b' will accept the company of the vowel 'a' *or* 'e' *or* 'i' *or* 'o' *or* 'u'. It demands vowel-company, but it does not demand the company of this vowel as against that vowel. Nouns and verbs, like consonants and vowels, can vary independently, but they cannot function by themselves. As an integral sentence is the minimum vehicle of a truth or falsehood, it is also the minimum expression of knowledge, belief and conjecture. A noun by itself or a verb by itself does not convey what I know or think, any more than a consonant-character stands for something that I can pronounce. What I know or think is something sayable and not something merely mentionable-by-name. This is brought out in, *inter alia*, Socrates' 'dream' in the *Theaetetus* (202). So a live verb is an indispensable element in the expression of knowledge or opinion.

I am going, somewhat arbitrarily, to split up my account of Plato's treatment of verbs into five heads.

(1) *Etymology*. In the *Cratylus* Plato proffers, surely with his tongue in his cheek, a great number of etymological derivations of Greek words. It has not, I think, been noticed that, especially from 411B, nearly all of the suggested root words are verbs. Socrates does not, unless by a hint or two (for example, in 411C), avow that this is the principle of his etymologising, though he does avow that he is doing his best for the Heracleiteans. So Plato was toying with the idea that the original seeds of language were expressions for happenings, undergoings, doings, havings, gettings, startings, stoppings—that is, verbs. He was perhaps pretending that what the Heracleitean flux theory amounted to is that what is real is wholly expressible by tensed verbs of happening, doing and so forth.

(2) *Tenses*. Plato attends to the time indications of tensed verbs in many places (for example, *Timaeus* 37–8; *Philebus* 39–40, 59; *Cratylus* 439D; *Theaetetus* 178; *Sophist* 262D). In the *Parmenides* (141D–E) he actually distinguishes eight or nine tenses in place of the hackneyed trinity of past, present and future. Plato is now taking time very seriously. Not only the timeless is real (*Sophist* 248–9, 262D). Not only the timeless is knowable (*Philebus* 61D, 62B; *Theaetetus* 201B–C). It is worth noticing, too, that about a third of the dialectical operations in Part II of the *Parmenides* are or include operations upon temporal concepts. Pardonably, Plato is not alive to the

fact that there could be languages in which time indications were not given by inflections of verbs. He did not know Chinese or the stories of Damon Runyon. Nor does he notice that time indications can be given by the participles of verbs.

(3) *Active and passive voices*. Plato frequently, from the *Euthyphro* (10) on, contrasts *poiein* with *paschein*, acting with being acted on. I suspect, but do not pause to argue, that when he draws this distinction he often has one eye on the grammatical distinction between a verb in the active voice and the same verb in the passive voice. Loving and being loved are not the same thing though the verbal noun 'love' is the same for both.

(4) *Saying*. Unlike Protagoras, who had apparently distinguished asserting from enquiring, commanding, beseeching and the like, Plato attends only to those sentences in which we assert or deny that something is the case, that is, to those which convey truths and falsehoods. A sentence expresses the termination of an enquiry. When we have something to state, we have terminated a stretch of wondering (*Theaetetus* 190A; *Sophist* 262D, 264A). In stating something we combine, at the least, a verb with a noun. By the noun we mention some subject by name; by the verb we assert something about that subject. So the sentence is not just a list of two mentioned subjects. Statements are either assertions or denials, that is, either affirmative or negative (*phasis* or *apophasis*, *Sophist* 163E; cf. *Theaetetus* 190A). The notion of the verb as a copula seems to be at least nascent in *Parmenides* (162A) where the use of *desmos* (bond) for the verb 'to be so and so' echoes, I guess, the use of *desmos* in the *Sophist* (253A) for the linking function of vowels in syllables. Plato saw that there begin with saying, as distinct from naming, both asserting and denying and truth and falsehood, though in the *Cratylus* (385B–C) Socrates pretends that the parts of a true sentence must themselves be true. Moreover, only things said can contradict or be contradicted. A word could not be the contradictory of another word, though it might be its opposite. If I say that Socrates is not tall, I contradict the assertion that he is tall, but I do not assert that Socrates is short (*Sophist* 257B). Consequently, I think, though I am co-operating here, that Plato realised that 'not' operates only where live verbs are functioning. It makes its particular contribution to the *saying-about* that the verb in a sentence does, not to the *mentioning-of-the-subject* that the nominative of the sentence does. 'Not' cannot appear, either by itself or in harness with another word, in a list of things. In the *Sophist* (237–9) Plato emphasises the queer-seeming but important point that we cannot speak about the

non-existent, since the expression 'the non-existent' is debarred from being either singular or plural. We cannot say 'it is so and so' or 'they are so and so', for 'it' and 'they' refer to what is and are there to be referred to, not to what is and are not there. There cannot be many or even one of what there is none of.

In the *Theaetetus* Socrates' puzzle was, How can we think what is not, when what we see or hear are things that are? The source of the trouble is this. We see and hear *things*, for example people. But what we believe are propositions *about* people, that is, sayables and not namables. Now among things, for example visible things, there are indeed no non-things, but among believables and sayables there are things which are the right and the wrong things to believe and say *about* a given subject-term. The work that 'not' does it can do only in collusion with a live verb or, more generally, with a live predicative expression that is doing its work in a full sentence. In the *Sophist* (243) Plato sees clearly that his perplexities about '. . . is not . . .' and '. . . does not exist' are just as much perplexities about '. . . is . . .' and '. . . exists'. Of course 'not' is not itself a verb. But what it means is somehow internal to what is meant by the live verb with which it goes. Parmenides' trouble with 'not' derived, I suggest, from his assumption that 'not' would, if admitted at all, have to be a component of subject-denoting expressions like 'the not-real' or 'the not-existent'. Plato, on my interpretation, rightly transfers the locus of 'not' to the asserting side of sentences, that is, roughly, to their verbs. There are no negative things to make true or false assertions about, but about anything you please there are true or false denials to make. What I declare can be negative. What I mention cannot be negative or, of course, affirmative either. It must be singular or plural; it cannot be zero.

This suggests a line of interpretation of the baffling doctrine of the 'Greatest Kinds' in the *Sophist* (254 et seq.). The explicit object of the enquiry is to find a home for 'not'. The concepts collected as 'Greatest Kinds' are those of *kinesis, stasis, being, identity* and *otherness*. Now what are these supposed to be supreme kinds *of*? They are not, I suggest, adduced as *summa genera* of namable things, that is, of the subject-terms about which true and false assertions can be made. Instead, I suggest, they are *summa genera* of what is assertible about subject-terms, that is, very crudely, they are basic *verb forms*. *Kinesis* (which Plato, like Aristotle, explicitly uses for any kind of change, not only motion) is the generic verbal noun for all live verbs and verb inflections of happening, doing, beginning, stopping and

the like. *Stasis* is the verbal noun for all verbs and verb inflections of continuing and remaining. 'Being' is the verbal noun for existing and for being so and so. 'Identity' is the abstract noun for 'is', where this is the 'is' of identity. 'Otherness' is the abstract noun for the verb phrase 'is not' where this is the 'is not' of non-identity. Plato's aim is, I suggest, to show that the notion of 'not' is, via the 'is not' of non-identity, internally constitutive of, without being equivalent to, what is asserted in assertions of all the various types. 'Not' is not an external appendage which just happens now and again to attach to this or that verb. It is, in different ways, an internal part of the force of any verb. For example, if Socrates is now waking up (*kinesis*) it follows that he is not still remaining asleep (*stasis*) and vice versa. To say something is to deny some other things.

Plato's intricate argumentation about the Greatest Kinds is followed immediately by his treatment of nouns and verbs. Having satisfied Theaetetus that any truth or falsehood must be about someone or something, the Stranger finds falsehood to consist in something being asserted about the subject other than what is the right thing to assert about him; that is, the crucial notion of otherness is brought in to mark off one assertible from another assertible, for example, the right one from a wrong one. The otherness that we heard so much of among the Greatest Kinds is here controlling assertibles, for example, the sense of different live verbs. If it is false to assert about Theaetetus that he is flying, then it is true to assert about him that he is not flying; and if it happens also to be true to assert of him that he is sitting, *part* of the force of 'is sitting' is 'not flying'. If we discover that he is sitting, then we do not have to make a second discovery, that he is not flying. 'Is not flying' is part of what 'is sitting' says. However, I do not want to thrash out this very conjectural line of elucidation. But if this or something like this was in Plato's mind, then he was aiming at the right target, though I think that he was not aiming at its bull's-eye.

It is worth while now to consider briefly a point which worried the young Russell in his *Principles of Mathematics* (at the end of chapter IV). Russell realised, rather reluctantly, that between the statement 'Brutus assassinated Caesar' and the list 'Brutus, assassination, Caesar' there was some vital difference. The first tells a truth or falsehood; the second tells nothing at all, though it mentions three things. Yet surely the verbal noun 'assassination' expresses the same concept as the verb 'assassinated' and, if so, it ought to be able to replace the live verb in a sentence *salvo sensu*—which it patently cannot do. This little crux is of great importance. For if

asked 'What does "assassinated" mean?' or 'What does "will prosecute" mean?' we see automatically that we are being asked for the elucidation of the common core of all full sentences of the pattern 'Blank assassinated Blank', or 'A will prosecute B'. Live verbs unmistakably advertise themselves as being cores cut out of full sentences. To ask what a given live verb means is to ask what a speaker would be saying if he said something with it. Live verbs are snatches from speech, that is, from the *using* of words. Live verbs could not feature in lists. They occur only in contexts; indeed they are the lifebreath of those contexts. This is even more obvious in Greek than in English, since a Greek verb indicates not only time, but also the singularness, dualness or plural-ness of the subject, and the subject's being the first person, second person or third person. Very often a Greek verb is by itself an entire sentence. What we automatically see to hold of the meanings of live verbs, we can then without difficulty see to hold also of 'and', 'if', 'therefore', 'not', 'some', 'any', 'a' and 'the'. It would be as vain an enterprise to try to examine the meanings of these words out of any sentence context as to try to examine the noise for which the character 'b' stands, out of the phonetic context of any syllable.

Russell was forced by this sort of consideration of the senses of live verbs, as opposed to the meanings of the corresponding verbal nouns, to realise, with Frege, that the notion of the sense of an integral sentence, that is, what it says, is prior to the notion of the senses of at least some of the words in it. To ask after the meaning of a live verb or of a conjunction or of 'not' is to ask what *would* be being said with it if someone did put it to work. It is to ask what the word contributes to the senses of the integral sentences in which it occurs. The sense of the sentence is not an amalgam of separately thinkable word meanings. The meanings of its live verbs and so forth are abstractable features, not detachable parts of the senses of the sentences in which they occur. To paraphrase Frege, a live verb or, more generally, a predicative expression flourishes gaps or lacunae around it, namely, lacunae for such other expressions as would, with it, constitute an integral statement. These lacunae are, of course, hospitable. Any expression of the right sort would be welcome. We could fill the lacuna in '. . . flies' or 'Blank flies' with 'Theaetetus' or 'Plato' or 'Bucephalus' and so forth, and each time a significant though usually false sentence will result. The alternative fillings of the lacuna are, in this way, substitutable for one another; and the lacuna can be called, therefore, a 'substitution-place'. What the verb contributes to the sentence 'Plato flies' it contributes to the

sentence 'Bucephalus flies'—but 'Blank flies' says, as yet, nothing, and *a fortiori* just 'flies' says nothing. Nor, of course, does it name anything or anyone.

Now Plato, though he is, I maintain, very clear about the saying function of verbs and clear that this function is quite different from the naming function of nouns, says not a word about Russell's special problem: just how is the sense of a live verb different from the meaning of the corresponding verbal noun, for example, how is the sense of 'Blank assassinated Blank' different from the meaning of 'assassination'? There is, however, one fact, besides the *a priori* probabilities, which makes me think that Plato had seriously considered this question or part of it. The second part of the *Parmenides* is an entirely abstract discussion in which hardly a single concrete or even specific word is used. About a third of the dialectical operations are operations upon temporal concepts. Yet, with the exception of *ousia*, hardly a single verbal noun is employed. Abstract nouns in general are also pretty rare, but there are three or four stretches of the discussion in which Plato is quite lavish with such terms as 'equality', 'similarity', 'smallness' and so on. But verbal nouns like 'motion', 'rest', 'alteration', 'termination', 'becoming' and 'cessation' virtually do not occur. This is refreshingly unlike the discussion of the Greatest Kinds in the *Sophist*, in which the reader is presented with a stodgy pudding of verbal and other abstract nouns, together with opaque metaphors like 'participate', 'merge', 'blend' and 'pervade', with nothing to indicate whether we are to translate these culinary metaphors (1) in terms of 'ingredient' and 'compound' or (2) in terms of 'if' and 'therefore', that is, whether they stand for (1) relations between what can be named or (2) connections between what can be said. In the second part of the *Parmenides* we get instead of verbal nouns, such as 'motion', 'continuance', 'alteration', 'cessation' and so forth, integral sentences and clauses the live verbs of which are such verbs as 'moves', 'alters', 'began', 'will cease' and the like. Apparently Plato was now, for some reason, deliberately abstaining from using verbal nouns, as if he thought, as he would have been right to think, that there are important things which operations with live verbs display which verbal nouns would conceal. But what?

(5) *Implications*. Implications hold only between assertibles. 'If' and 'therefore' link sentences, not names. Where 'if' or 'therefore' occurs, there at least two verbs occur. Old Parmenides, in the *Parmenides* (136A–C), repeatedly states the programme of looking to see what must be the case,

if something else is the case, or what has got to go with what, or what follows from what. All the subsequent dialectical operations are derivations, legitimate or illegitimate, of consequents from antecedents. Now it is an obvious point that the formulation of antecedents and consequents involves the production of integral sentences or clauses incorporating, necessarily, live verbs. But there is a further point, not so obvious, and presumably not noticed at all by Plato. Take the implication 'If Plato is the uncle of Speusippus, then Plato is the brother of one of Speusippus' parents'. Clearly this implication holds good if for 'Plato' we substitute 'Robinson' or 'Voltaire' and if for 'Speusippus' we substitute 'Brutus' or 'Trotsky'. The implication is quite indifferent to whom in particular the antecedent and the consequent are about. But it is not at all indifferent to what is said about them. We cannot *salva implicatione* substitute 'is the employer of' for 'is the uncle of', or substitute 'is the neighbour of' for 'is the brother of'. Implications are the gift not of the subject-terms of sentences, but of their asserting or denying bits, namely their verbs or more generally their predicative expressions. Hence, when formal logic begins, expressions like 'Plato' and 'Speusippus' are algebraised away, that is, they are replaced by '*a*' and '*b*'. But the verbs or predicate-expressions are not algebraised away, nor are the words 'not', 'all', 'some', 'if', 'and' and so forth. I think Plato realised that implication, like negation and contradiction, lives only where *saying* lives, and therefore where live verbs live. I do not think that he had any idea how to detach what implications are indifferent to from what they are not indifferent to. Algebra did not yet exist.

CONCLUSION

Plato in his late dialogues was concerned with some of the same cardinal problems as those which exercised Frege and the young Russell, problems, namely, about the relations between naming and saying; between the meanings of words and the sense of sentences; about the composition of truths and falsehoods; about the role of 'not'; about the difference between contradictories and opposites; and in the end, I think, about what is expressed by 'if' and 'therefore'. His admirable model, which Frege lacked, of the phonetic elements in syllables enabled Plato to explain more lucidly than Frege the notion of the independent-variability-without-separability of the meanings of the parts of sentences. On the other hand,

lacking the apparatus of algebra, he was nowhere near abreast of Frege's and Russell's symbolisation of substitution-places. Plato could not extract implications from their particular contexts or therefore codify implication patterns. A blackboard would have been of no use to him.

Plato says nothing about the bearings of the alphabet model on the Theory of Forms, or of the Theory of Forms on the alphabet model. So I shall not say much. If the Theory of Forms had maintained or entailed that Forms are just subject-terms of a superior sort, that is, just eminent namables, then this theory could contribute nothing to Plato's new question, What does a sentence convey besides what its subject name mentions? But if the theory of Forms had been meant or half-meant to explain the contributions of live predicates, including tensed verbs, to truths and falsehoods about mentioned subjects, then in his operations with the model of letters and syllables, Plato has raised to maturity things which, in his Theory of Forms, had been only embryonic. To his terminal questions about the composition of *logoi* and, therewith, about the roles of live, tensed verbs, the Theory of Forms was either quite irrelevant or else quite inadequate.

4

THE 'TIMAEUS LOCRUS'

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The *Timaeus Locrus* (=TL) is a *précis*-paraphrase of Plato's *Timaeus*. It tries to be in the Doric dialect, and it essays eloquence. It by-passes much of the *Timaeus*, and its vocabulary is largely non-Platonic. It also frequently diverges from the *Timaeus* in content. Like Aristotle and Plutarch the author of the *TL* renders Plato's doctrine of Place in terms of Hyle, Morphe and Hypokeimenon. He also improves on Plato's natural science. The *TL* omits Plato's Theory of Forms. God constructs his world after an 'Idea', but this word is never used in the plural.

A. E. Taylor examines the *TL* in an appendix to his *Commentary on Plato's 'Timaeus'* (1928), R. Harder in *Pauly-Wissowa* (1936). See also Holger Thesleff's *An Introduction to the Pythagorean Writings of the Hellenistic Period* (Acta Academiae Aboensis), Abo, 1961.

I. THE TAYLOR–HARDER THESIS

Taylor argues that the *TL* was written in about the first century A.D. He allocates it to the *genre* of the Neo-Pythagorean forgeries of the first century A.D. That the *genre* even existed is disputed by Thesleff, who argues that most of the members of this supposed *genre* were not forgeries and were composed in the fourth and third centuries B.C. Taylor finds in the *TL* astrological ideas and Stoic philosophical legacies, particularly fatalism.

Taylor acknowledges that there is no Neo-Pythagoreanism in the *TL*, which, indeed, is less Pythagorean than the *Timaeus*, in that it sniffs at transmigration (104D). He points out that the *TL* is never named by Plutarch and is first named by Nicomachus in the second century A.D.

Harder accepts Taylor's dating, though he rightly rejects most of Taylor's reasons for it. He finds no astrology in *TL*, no fatalism or other Stoic thought.

Harder argues that as the *TL* is first explicitly mentioned in the second century A.D., it came into existence not long before that mention. Yet this argument would dispose at one blow of scores of lost works by Speusippus, Xenocrates, Aeschines, Aristippus, Antisthenes, Aristotle, etc., the first extant mentions of which are found in post-Christian authors. Neither Taylor nor Harder worries that Nichomachus treats the *TL* as a pre-Platonic composition, never dreaming that it had been composed during his own lifetime.

Harder, like Taylor, classifies the *TL* as a forgery, and therefore as belonging to the golden age of Neo-Pythagorean forgeries. Neither explains what the *TL* might be a forgery of. It does not pretend to be by any named individual, since it is anonymous. Nor does it purport to be by a member of a School, like that of the Pythagoreans. It makes no pretences at all, unless its being in quasi-Doric is taken to be a pretence to antiquity, which would beg the question. Of what could an anonymous *précis* be a counterfeit?

Harder recognises that a lot of the *TL* is much earlier than the first century A.D. He therefore valiantly postulates an earlier *précis* of the *Timaeus*, 'Q', on which the *TL* drew. The fact that 'Q' is unmentioned by anybody at all, A.D. or B.C., does not embarrass Harder. Nor does he show why, if 'Q' did exist, the *TL* should not be simply identified with it.

So far we have found no evidence for or any sense in the view that the *TL* was a forgery at all, or specifically a first-century forgery. It was composed after the *Timaeus*, and before Nicomachus, but we have only the hazardous argument from its being unmentioned before the second century A.D. to its having been composed late in that half-millennium. Thesleff says that the *TL*'s brand of Doric died out some two centuries B.C.

II. THE COUNTER-THESIS

I shall argue that the *TL* was written in the fourth century B.C., during Plato's lifetime. It is certainly not mentioned by Plutarch or Aristotle, but they make lots of draughts on it.

A. Vocabulary

The *TL*'s vocabulary is largely non-Platonic. It contains lots of out-of-the-way words, including over thirty ἅπαξ λεγόμενα and about a dozen words peculiar to *TL* and Plutarch.

Of about 160 out-of-the-way non-Platonic words in the *TL* that I have collected, over eighty are found in Aristotle, many of them only in Aristotle and the *TL*. A moderate number are found in and sometimes only in the Hippocratic writings, and about a dozen in and sometimes only in Theophrastus. A few are used by Speusippus. A few seem to be Archytean words; and a few may hail from Democritus.

Apart from ὕλη, μορφή and ὑποκείμενον, the Aristotelian words in the *TL* are not logical or metaphysical, but, e.g., medical, astronomical, geometrical and zoological words. Its vocabulary coincides scores of times with that of the *De Caelo, De Anima, De Partibus Animalium, Meteorologica*, etc., but not with that of the *Organon* or the *Metaphysics*. Categories, Contraries, Four Causes, Potentiality, Actuality, Peras and Apeiron, Syllogisms, Premisses, Predicates, etc., are unmentioned in the *TL*.

With one or two doubtful cases, no Stoic words, logical, philosophical or scientific, are in the *TL*. Where Plutarch draws from Plato, Aristotle, the Stoics and the Epicureans, the *TL* speaks in the voice of fourth century 'physiology'. The exceptions are these: τονόω ('brace') is used by a minor Stoic or two and by the *TL* (103E), and Plutarch; we have no proof that these Stoics coined it. εὔροια (*TL*, 104C) in an ethical sense is a Stoic use, though it had been used hydraulically, medically and phonetically by Plato and Aristotle. There is also in the *TL* (97C) a queer verb ἐκτυλίσσει, where I conjecture Aristotle's and Plutarch's [ἕλικας] ἐξελίσσειν. It has been argued that ἐκτυλίσσειν, not found elsewhere, ought to be Archimedean in derivation. The MSS. are not unanimous about it. The *TL* uses ἀντίληψις, which sounds Stoic but might be Democritean. Its σκῆνος (tent) for the body could be Hippocratic or Democritean.

B. Content

The *TL* is a digest of the *Timaeus*, but not a slavish digest. On several points the *TL* improves on Plato's natural science. These all belong to the fourth century B.C.

(*a*) The *Timaeus*, 79, explains inhalation/exhalation by a circulating pressure, περίωσις as Aristotle calls it, who attacks this account in his *De Respiratione*, 427b. He likens breathing to the in–out action of the blacksmith's bellows, 474a; the *TL*, 102A, to the ebb and flow of the tide, εὔριπος.

(*b*) The *Timaeus*, 38–9, describes the relative positions of the Sun, Moon, Earth, Venus and Mercury; the remaining planets it leaves unplaced and unnamed. The *TL*, 97A, names and, more doubtfully, places Saturn, Jupiter and Mars. This arrangement, called by H. Lorimer the 'Pythagorean' arrangement, adopted by Eudoxus and Aristotle, was replaced by the 'Chaldean' arrangement in about 200 B.C., some three centuries too early for Taylor and Harder.

(*c*) The *TL*, 96C, parades the fact that the Morning Star and the Evening Star are often one and the same planet, namely Venus. Plato does not mention this in the *Timaeus*, and is still unaware of it in the *Laws*, 821. It is in the *Epinomis*, 987B.

(*d*) Where the *Timaeus*, 47, talks of the intellectual values of sight and hearing, the *TL*, 100C, and Aristotle in *De Sensu*, 437a, add that people born blind are more intelligent than those born deaf, since the latter are cut off from human discourse.

(*e*) The *Timaeus*, 56A–B, accounted for the penetrating and consuming character of fire by the fire-pyramids having the 'cuttingest' shape. The *TL*, 98E, explains the phenomena by the fire-particles being the finest or smallest. Aristotle in *De Caelo*, 304a, criticises Plato and then discusses the subtler account.

(*f*) The *Timaeus*, 62A–B, connects the difference between Cold and Hot with the fact that the grosser particles cause blockages, where the finer particles penetrate and permeate. The *TL*, 100E, says that cold blocks up the pores. Plato had said nothing about pores. Aristotle in *De Caelo*, 307b, criticises, presumably, Plato for making Cold and Hot differ in the sizes, instead of in the shapes of particles, and mentions the blocking up of pores.

(*g*) The *TL*, 100D, departs from the account of Above and Below in

Timaeus, 62–3, for one in terms of Away from the Centre and Towards the Centre, like Aristotle in *De Caelo*, 308.

(h) Where the *Timaeus*, 52B, said that we apprehend Place only by a 'bastard sort of reasoning', the *TL*, 94B, says that Matter is apprehended by a bastard sort of reasoning *helped by analogy*. In *Physics* 1, 191a, Aristotle allows Matter to be *known by analogy*.

(i) In the *TL*, 100C, God kindles sight in us for the contemplation of the heavenly bodies and the acquisition of science. This is not said in the *Timaeus*, though it was Plato's view that in seeing the eye emits light (*Timaeus*, 45–6). Aristotle retained this doctrine in *De Caelo*, 290a, but not in *De Sensu*, 437b, or *Topics*, 105b6.

(j) In the *TL*, 102–3, the ἀρεταί of the body, namely health, beauty and strength, with their opposite κακίαι, are accounted for by 'symmetries' and 'asymmetries' between Heat and Cold, Wet and Dry. This is not in the *Timaeus*, but it is in early works of Aristotle, namely *Eudemus*, *Topics*, esp. 116b, and *Physics* VII, 246b4–8.

(k) The *TL* expounds Place and its occupants in terms of ὕλη, μορφή and ὑποκείμενον, like Aristotle, e.g. in *Physics* IV.

(l) The *TL*, 101D, refers to Natural Heat, φυσικὴ θερμότης. This was cardinal in Aristotle's physiology, e.g. in *De Resp*. It hailed from Philistion. It is not in the *Timaeus*.

(m) The 'Pneuma' theory, cardinal to Aristotelian physiology and psychology, is present in *TL*, 101 et seq. It was Philistion's theory. It is not in the *Timaeus*.

Of these thirteen points where the *TL* improves on the *Timaeus*, not one presupposes any post-Aristotelian speculations or discoveries; and nearly all are made by Aristotle, often in early works.

C. Echoes

There are many passages in *TL* between which and passages in other works there are certain or probable echo-relations.

Plutarch

(1) In his *Platonic Questions* and *De Animae Procreatione in Timaeo* Plutarch construes the *Timaeus* in the hylemorphic way in which both Aristotle in *Physics* IV and *TL* construe it. In his *In Timaeo*, 1014F, he says: τὴν ὕλην . . .

ἄμορφον καὶ ἀσχημάτιστον . . . (See also *Platonic Questions*, 1007C, and *Quaest. Conviv.* VIII, 2719D.) *TL*, 94A, says: ταύταν δὲ τὰν ὕλαν . . . ἀμόρφωτον δὲ καθ' αὑτὰν καὶ ἀσχημάτιστον . . . ὕλη as a metaphysical term and ἀσχημάτιστος are not in the *Timaeus*.

(2) In his *Divine Vengeance*, 550D, Plutarch professes to find Plato saying καὶ τὴν ὄψιν αὐτὸς οὗτος ἀνὴρ [Plato] ἀνάψαί φησὶν τὴν φύσιν ἐν ἡμῖν ὅπως ὑπὸ θέας τῶν ἐν οὐρανῷ φερομένων . . . ἡ ψυχὴ . . . ἀπέχθηται τοῖς ἀναρμόστοις . . . This sentiment does not occur in the *Timaeus*. It does in *TL*, 100C: . . . τὰν μὲν ὄψιν ἁμὶν τὸν θεὸν ἀνάψαι εἰς θέαν τῶν ὠρανίων καὶ ἐπιστάμας ἀνάλαψιν . . .

(3) On p. 580 of his *Commentary on Plato's 'Timaeus'* Taylor notices that Plutarch's mechanical explanation of the attracting powers of cupping-glasses and of amber is that of *TL*, 102A. The *Timaeus*, 80, provides no such explanation. Taylor speculates where Plutarch got his explanation from; he does not suggest the *TL*.

(4) In his *Quaest. Conviv.* VIII, 2719E, Plutarch, obviously paraphrasing the *Timaeus*, 53, mentions ὀκταέδρων καὶ εἰκοσαέδρων. Plato had mentioned eight-sided and twenty-sided solids, but not given them names. The *TL*, 98D, gives them their names, namely ὀκτάεδρον and εἰκοσίεδρον. The latter word is found only in *TL* and Plutarch; the former is also in Aristotle's *De Caelo* and in Euclid. Here Plutarch again uses ἄμορφος . . . καὶ ἀσχημάτιστος, where *TL*, but not the *Timaeus*, gives ἀμόρφωτον and ἀσχημάτιστον.

(5) At 720A–B Plutarch refers to the trinity of Creator, Pattern and Matter rather like the *TL* in its first two pages. There is nothing conspicuously similar in the *Timaeus*, 48E, though Plutarch refers explicitly to the *Timaeus*.

(6) Of over two dozen very out-of-the-way non-Platonic words in both the *TL* and Plutarch, a dozen would be ἅπαξ λεγόμενα in either if they were not in the other.

Zeno (of Citium)

Sextus Empiricus (in *Adv. Phys.* 1, 107) cites Zeno as saying, in unison with the *Timaeus*, τὸ πᾶν . . . κατὰ τὸν εἰκότα λόγον ζῷον ἔμψυχον νοερόν τε καὶ λογικόν. Λογικός does not occur in Plato at all, νοερός only in [?] Plato's *Alcibiades I*.

In *TL*, 94D, God made the Cosmos . . . ἕνα, μονογενῆ, τέλειον ἔμψυχόν

τε καὶ λογικόν. At 99E one part of the soul is . . . τὸ μὲν λογικὸν καὶ νοερόν.

Aristotle

(1) In the *De Anima*, 406b28, Aristotle ascribes a certain theory to Plato's *Timaeus*. He says: . . . συνεστηκυῖαν γὰρ ἐκ τῶν στοιχείων καὶ μεμερισμένην κατὰ τοὺς ἁρμονικοὺς ἀριθμούς, ὅπως αἴσθησίν τε σύμφυτον ἁρμονίας ἔχῃ καὶ τὸ πᾶν φέρηται συμφώνους φοράς, τὴν εὐθυωρίαν εἰς κύκλον κατέκαμψεν καὶ διελὼν ἐκ τοῦ ἑνὸς δύο κύκλους δισσαχῆ συνημμένους πάλιν τὸν ἕνα διεῖλεν εἰς ἑπτὰ κύκλους . . . ἁρμονικός does not occur in Plato; it is found occasionally in Aristotle and is credited by Philo, as an arithmetical term, to Archytas. μεμερισμένη does not occur in the *Timaeus* 36B–D. *TL*, 96D, says: ἁ δὲ τῶ ἑτέρω φορὰ μεμερισμένα καθ' ἁρμονικὼς λόγως ἐς ἑπτά κύκλως συντέτακται. The phrase κατ' ἀριθμὼς ἁρμονικώς occurs in *TL*, 96A.

(2) In *Physics* A, 191a8, Aristotle, arguing for ὕλη, says ἡ δὲ ὑποκειμένη φύσις ἐπιστητὴ κατ' ἀναλογίαν. As bronze is to statues, etc., so the ὑποκειμένη φύσις is to what has substantial existence. *TL*, 94B, says: . . . τὰν δ' ὕλαν λογισμῷ νόθῳ τῷ μήπω κατ' εὐθυωρίαν νοῆσθαι ἀλλὰ κατ' ἀναλογίαν.

Plato's *Timaeus*, 52B, gives us the 'bastard reasoning', with no mention of 'analogy'.

In the same passage Aristotle had used the rather rare word ἀσχημάτιστος. This occurs, also on p. 94A, in *TL* but not in the *Timaeus*.

(3) In his *De Sensu*, 437a3–17, Aristotle, like the *Timaeus*, 47, assesses the intellectual values of sight and hearing, Plato's phrase, 47C, μεγίστην συμβαλλόμενος εἰς αὐτὰ μοῖραν being echoed by Aristotle's πρὸς φρόνησιν ἡ ἀκοὴ πλεῖστον συμβάλλεται μέρος. Aristotle adds that those who have been blind are more intelligent than those who have been deaf from birth. *TL*, 100C, makes this addition too; and Aristotle's τῶν ἐκ γενετῆς ἐστερημένων rings like that in *TL*: . . . ἀκουὰν . . . ἃς στερισκόμενος ἐκ γενέσιος ὁ ἄνθρωπος οὐδὲ λόγον ἔτι προέσθαι δυνάσεται.

(4) In *De Gen. et Corr.*, 329a13, Aristotle says, 'What is written in the *Timaeus* is not accurately defined; for Plato has not clearly stated whether his 'omnirecipient' (τὸ πανδεχές) has any existence apart from the elements (στοιχείων) nor does he make any use of it, after saying that it is a

sub-stratum (ὑποκείμενον) prior to the so-called elements, 'as gold is to objects made of gold'. Plato does not use ὑποκείμενον in the *Timaeus*, in 51A or anywhere else. *TL*, 97E, uses ὑποκείμενον of ὕλη, though Aristotle's purported citation as a whole is not in *TL* or in the *Timaeus*.

(5) In Περὶ φιλοσοφίας, Fr. 12*b* (Ross), 1476a27 (quoted by Sextus Empiricus) Aristotle says: . . . θεασάμενοι ἥλιον μὲν τοὺς ἀπὸ ἀνατολῆς μέχρι δύσεως δρόμους σταδιεύοντα . . . This resembles *TL*, 97B, τὸν ἅλιον, ὃς ἀμέραν ἀποδίδωτι τὸν ἀπ' ἀνατολᾶς ἐπὶ δύσιν αὐτῶ δρόμον. No such phrase occurs in the *Timaeus*, 38–9.

(6) In [?] Aristotle's *Magna Moralia* (1204b38) Plato's notion of pleasure as a restoration is criticised. The noun and verb used are ἀποκατάστασις and ἀποκαθίσταναι, completed by εἰς φύσιν. Plato does not use this noun or verb in the *Timaeus, Republic* or *Philebus*. Nor does Aristotle in *EN* or *EE*. *TL*, 100C, paraphrases the *Timaeus*' account of pleasure by ἀποκαθίσταντι ἐς αὐτάν (sc. φύσιν).

(7) In *Topics* E, 130a 11–13, 132b21 and 31, Aristotle comments on certain unnamed persons' ascriptions of Properties. Fire was σῶμα τὸ εὐκινητότατον εἰς τὸν ἄνω τόπον, σῶμα τὸ λεπτότατον τῶν σωμάτων, οῶμα τὸ λεπτὸτατον καὶ κουφότατον. Fire had the property τοῦ λεπτομερεστάτου σώματος. It was a property of Earth to be βαρύτατον τῷ εἴδει.

In the *Timaeus*, 56A–B, τὸ εὐκινητότατον [εἶδος] was ascribed to Fire, as well as τὸ σμικρότατον σῶμα and τὸ ἐλαφρότατον ἐξ ὀλιγίστων . . . τῶν αὐτῶν μερῶν. So presumably Aristotle has the *Timaeus* in mind. But the vocabulary used by Aristotle coincides less closely with that of the *Timaeus* than with that of *TL*, 98D, where λεπτομερέστατον, βαρύτατον and εὐκινητότατον all occur; only the last occurs in the relevant passage in the *Timaeus*.

(8) In *De Respiratione*, 472b and 474a, Aristotle dismisses the Periosis theory of breathing in the *Timaeus*, 79, for an 'in–out' motion, like that of the air in the blacksmith's bellows. *TL*, 102A, says nothing about *periosis*, but likens breathing to the ebb and flow of the tide, *euripus*. Aristotle uses this simile in a different physiological context in *De Somn. et Vig.* 456b21.

(9) In *De Caelo*, 304A, Aristotle, referring presumably to the *Timaeus*, 56A–B, criticises the argument that Fire must be composed of pyramids, since Fire is the 'cuttingest' (τμητικώτατον) of bodies, and the pyramid is ditto of shapes. He then discusses the 'subtler' argument from the fact that Fire is the *finest* (λεπτομερέστατον) of bodies, and the pyramid is ditto of

solid shapes. *TL*, 98E, gives this 'subtler' theory and not that of the *Timaeus*. λεπτομειρία and λεπτομερέστατος do not occur in the *Timaeus*; they do in *TL*, 98D–E.

(10) In *De Caelo*, 307b11–16, Aristotle criticises, presumably, Plato's account of Cold and Hot in terms of the sizes of the fire-pyramids: φασὶ γὰρ εἶναι ψυχρὸν τὸ μεγαλομερὲς διὰ τὸ συνθλίβειν καὶ μὴ διιέναι διὰ τῶν πόρων: δῆλον τοίνυν ὅτι καὶ τὸ θερμὸν ἂν εἴη τὸ διιόν· τοιοῦτον δ' ἀεὶ τὸ λεπτομερές. ὥστε συμβαίνει μικρότητι καὶ μεγέθει διαφέρειν τὸ θερμὸν καὶ τὸ ψυχρόν, ἀλλ' οὐ τοῖς σχήμασιν.

This tallies well with *TL*, 100E, τὸ μὲν ὧν θερμὸν λεπτομερές τε καὶ διαστατικὸν τῶν σωμάτων δοκεῖ εἶμεν, τὸ δὲ ψυχρὸν παχυμερέστερον καὶ συμπιλατικὸν πόρων ἐστί. Cold is πιλητικός in [Aristotle] *Problems*, 14, 8, 909b18. The *Timaeus*, 62A–B, has nothing about pores. It does, however, contain μεγαλομερέστερα like Aristotle's μεγαλομερές, where *TL* has παχυμερέστερον. Aristotle and the *TL* have λεπτομερές where Plato has only λεπτότητα and σμικρότητα.

(11) In *De Caelo*, 279a7–11, Aristotle says: ἐξ ἁπάσης γάρ ἐστι τῆς οἰκείας ὕλης ὁ πᾶς κόσμος . . . ὥστε οὔτε νῦν εἰσὶ πλείους οὐρανοὶ οὔτ' ἐγένοντο, οὔτ' ἐνδέχεται γενέσθαι πλείους· ἀλλ' εἷς καὶ μόνος καὶ τέλειος οὗτος οὐρανός ἐστιν.

This resembles *TL*, 94C–D, [ὁ θεὸς] ἐποίησεν ὧν τόνδε τὸν κόσμον ἐξ ἁπάσας τᾶς ὕλας, ὅρον αὐτὸν κατασκευάξας τᾶς τῶ ὄντος φύσιος διὰ τὸ τἄλλα πάντα ἐν αὑτῷ περιέχεν, ἕνα, μονογενῆ, τέλειον, ἔμψυχόν τε καὶ λογικόν. Aristotle says that the οὐρανός is ἔμψυχος in *De Caelo*, 285a30, where Plato had called the cosmos ζῷον ἔμψυχον ἔννουν in *Timaeus*, 30B.

(12) In his *Aristotle: Physics*, p. 17, Ross, following Jaeger, argues for the earliness of *Physics* VII from its reference, 246b4–8, to the ἀρεταὶ τοῦ σώματος, namely ὑγίεια, κάλλος and ἰσχύς. These bodily ἀρεταί are mentioned together in Aristotle's *Eudemus* and *Topics*; they do not appear thus in Aristotle's later writings, like his *EN*. They had been mentioned together in Plato's *Republic*, *Philebus* and *Laws*, though only in the *Republic* are they treated as ἀρεταί. They are not mentioned together, nor are bodily ἀρεταί mentioned in the *Timaeus*.

In the *TL*, 103C, the ἀρεταί and κακίαι of the body are mentioned generically; ὑγίεια, κάλλος and ἰσχύς, plus εὐαισθησία, are the specific 'virtues' mentioned. The account in the *TL* is fuller than that in *Physics* VII, *Eudemus* and *Topics*. The *Physics* talks of the 'symmetry' of warm and cold [humours], where the *TL* talks of the 'asymmetries' of warmness,

coldness, wetness and dryness. These four 'humours' are mentioned in connection with 'symmetry' in *Topics*, 116b18–22; and cf. 139b21 and 145b8. Plato, in the *Timaeus* and elsewhere, has the four Empedoclean elements; but not the four humours.

Incidentally the passage in the *Physics* VII, 246b9, says that each of the bodily ἀρεταί and κακίαι . . . εὖ ἢ κακῶς διατίθησι τὸ ἔχον. *TL*, 103A, has the markedly similar phrase . . . εὖ ἢ κακῶς ἀμὲ διατίθητι. A little later, 247a7, Aristotle says that all ethical virtue is concerned with bodily pleasures and pains. *TL*, 102E, says that the ἀρχαί of badness are pleasures and pains, desires and fears, ἐξαμμέναι μὲν ἐκ σώματος, ἀνακεκραμέναι δὲ τᾷ ψυχᾷ. In *EN* Aristotle had given up this extreme physiological account.

(13) Vocabulary-coincidences between *TL* and Aristotle are very frequent. Between eighty and ninety out-of-the-way non-Platonic words in *TL*, about five per page, are found also and often only in writings of Aristotle, like *De Caelo, Meteorologica, De Partibus Animalium*, etc.

The 'Platonic' Definitions. In vol. V of Burnet's *Opera Platonis*, there is the collection of Definitions erroneously labelled 'Platonic'.

(1) On the first page, a definition of 'God' runs: θεὸς . . . τῆς τἀγαθοῦ φύσεως αἰτία.

In the second sentence of *TL* we find, δύο αἰτίας εἶμεν τῶν συμπάντων, νόον μὲν . . . ἀνάγκαν δὲ . . . τουτέων δὲ τὸν μὲν τᾶς τἀγαθᾶ φύσιος εἶμεν θεόν τε ὀνυμαίνεσθαι.

(2) On the same page a definition of 'Day' runs: ἡμέρα ἡλίου πορεία ἀπ' ἀνατολᾶν ἐπὶ δυσμάς. *TL*, 97B, has τὸν ἅλιον, ὃς ἁμέραν ἀποδίδωτι τὸν ἀπ' ἀνατολᾶς ἐπὶ δύσιν αὐτᾶ δρόμον.

We have then, besides lots of vocabulary-coincidences, a score of apparent passage-echoes between the very short *TL* and other works; few of them can be dismissed as fortuitous. Which way does the echoing run?

My view is that the *TL* preceded even the *Definitions*, Aristotle's *Eudemus, De Philosophia, De Caelo* and *Topics* and, *a fortiori*, his later works and those of later writers. Aristotle's, Zeno's and Plutarch's memories of the *Timaeus* were blended with their memories of the *TL*, which was short enough to memorise. Since, as I shall argue elsewhere, the *Timaeus* was not given to the world but only to the Academy, so that during his lifetime the only text of the *Timaeus* was in Plato's custody, Aristotle, until he was over thirty-seven,

may have had no regular access, if any, to this text, though he must have often heard it and made full notes of what he heard. But he possessed his own copy of the *TL*.

My reasons are these:

(1) As said earlier, the *TL*'s non-Platonic vocabulary is, save for ἅπαξ λεγόμενα, almost wholly Aristotelian, Hippocratic, Speusippan, Archytean and Theophrastan. Only three of its words look like Stoic words, and possibly the Stoics got them from the *TL*.

(2) The writings of Plutarch, the Stoics, and, of course, our Aristotle himself are full of Aristotelian logical and metaphysical terms. So are the '*Platonic*' *Definitions*. How could the postulated late writer of the *TL* have gleaned vocabulary and ideas from the Stoics, Plutarch, Theophrastus and Aristotle without picking up any Category-parlance or making any mentions of Contraries, Privations, Actualities and Potentialities, Four Causes, Peras and Apeiron, etc.? The *TL* reads as if its author did not know the *Categories*, *Topics* or *Metaphysics*, or the writings of anyone who did. It reads so because he did not.

(3) What customers wanted a digest of the *Timaeus*? The dialogue, though longish, is short compared with the *Republic* and the *Laws*.

Elsewhere I shall argue that the *Timaeus* is identical with the single lecture given by Plato to Dionysius between 367 and 366 (see the *Seventh Letter*, 341 and 344). Now this composition was not to be given to the public, in speech or in writing (341D–E), but only to those who knew how to research, i.e. to the members of the Academy. Galen says that the *Timaeus* was not published to the world by Plato (Kühn, vol. IV, 757 ff.). The *Timaeus* was indeed ill suited for general dissemination. Its theology was unorthodox; and its second half was pure medical students' pabulum. Above all, much of its substance was not Plato's own, but drawn from Archytas and Philistion. The description of Timaeus in the *Timaeus* is the description of Archytas. Plato would not steal.

So if the *Timaeus* was unpublished during Plato's lifetime, there might well have then existed a demand for a *précis*-paraphrase of it.

The *Timaeus* was published soon after Plato's death. Aristotle often refers to what is 'written' in the *Timaeus*, and occasionally cites its *ipsissima verba*. Theophrastus knew it and Crantor wrote a commentary on it. It was the time while the *Timaeus* was confined to the Academy, before Plato's death, that was the right period for the production of a digest of it, to serve as an 'exoteric' deputy for it.

(4) If so, then only an Academic who had been taught from it would yet be equipped to write a digest of it. That his non-Platonic vocabulary should largely be Aristotelian, Hippocratic and Theophrastan is just what we should then expect. The *TL*'s author studied in the Academy and also knew things deriving from Archytas and Philistion other than what is in the *Timaeus*.

(5) If all or several of my alleged echoes are genuine, then the hypothesis of a post-Plutarch *TL* would be the hypothesis that the author of a brief *précis* of an only moderately long and, by now, basic Platonic dialogue, ransacked, jackdaw-like, works by Plutarch, Zeno, 'Hippocrates', Speusippus, Archytas, Philistion, Theophrastus, Democritus and especially Aristotle, plus the *Definitions*, for non-Platonic sentiments and vocabulary with which to de-Platonise the *Timaeus*. Moreover, his ransackings were highly selective. No Stoic ideas or terms, save perhaps two, were to be used; no Aristotelian logical terms or ideas; and only three Aristotelian metaphysical terms or ideas. For what customers could such a curious concoction be designed? For studious readers of the *Timaeus*? Then why did the author not simply paraphrase the *Timaeus*? And why did he attempt eloquence? On this hypothesis *TL* would be echoing some non-Platonic doctrines which Aristotle had held in early writings (e.g. *Physics* VII and above all *De Caelo*), but had modified in later writings (e.g. *EN* and *De Sensu*).

(6) The interval between Plutarch's and Nicomachus' floruits cannot be a long one and might be a short one. The *TL*, if it appeared during this interval, would have been known by Nicomachus to be a very recent production or resurrection. Yet he regarded it as a genuine antique. If he did not suspect it of borrowing from his near-contemporary Plutarch, we should suspect the idea that it did so.

III. ARISTOTLE

We now have enough pointers to surmise that Aristotle himself, when a very young man, wrote the *TL*, if only the objection that the *TL* is in imitation Doric can be circumvented. E. Frank, in his *Plato u. die Sogenannten Pythagoreer*, shows that Speusippus and Xenocrates also doricised. But it is just its being doricised that has inhibited the idea of Aristotle's authorship of the *TL*.

Diogenes Laertius ascribes to Aristotle a single book called *Extracts from the 'Timaeus' and the Works of Archytas*, Τὰ ἐκ τοῦ Τιμαίου καὶ τῶν

'Αρχυτείων. This, I suggest, is the *TL*, which is brief enough to be 'one book'.

Well, then, how could a composition by Aristotle be in would-be Doric? In 361 Plato made his third visit to Syracuse. Though the '*Platonic*' *Letters* hush this up, there were with him Speusippus, Aristippus and Aeschines; Xenocrates was almost certainly there; Eudoxus was probably there. There was a delegation of intellectuals from Athens and Dionysius had invited them all, probably in concert with Archytas. I had already wondered why Aristotle should *not* have been in this delegation, with Xenocrates, when it struck me that Aristotle's early writings do have a markedly Italian bias.

When pretty young he wrote a book about the Pythagoreans. In the *Fragments* we have several snippets from this book. As these seem to be the sorts of things to hail from oral traditions, perhaps Aristotle collected them in person in the 'boot' of Italy. One batch of stories comes from Pythagoras' region of Croton, Sybaris and Metapontum. In his *Politics* VII, 1329b, Aristotle seems to draw, quite gratuitously, on some contemporary traveller's topographical knowledge of this region, and so, perhaps, on his own knowledge. Maybe some of the numerous yarns about Sicily and southern Italy in the *De Mirabilibus Auscultationibus* are out of Aristotle's own travel-diaries. In his *Politics* Aristotle draws a surprising number of his examples from the Greek cities of the Mediterranean and Adriatic. Aristotle's early *On Contraries* is said by Simplicius to have been powerfully influenced by Archytas. Aristotle also wrote three books on Archytas. His *Extracts from the 'Timaeus' and the Works of Archytas* is likely to have been fairly early, if the *Timaeus* was not published during Plato's lifetime, so that it would be during this period that there would be a demand for a digest of it. Perhaps Aristotle could have acquired his interest in the Pythagoreans and the ideas of Archytas and Philistion without leaving Athens. But perhaps he acquired his interest and knowledge in Syracuse and Tarentum. The strong influence of the Sicilian doctor Philistion upon Aristotle, described in C. Allbutt's *Greek Medicine in Rome* (Macmillan, 1921) and W. Jaeger's *Diokles von Karystos* (1938), was too deep and wide to have been the product of transported lecture-notes or the reminiscences of go-betweens. Aristotle sat at Philistion's feet, somewhere; maybe he sat at his feet in Syracuse and at Archytas' feet in Tarentum between 360 and 361.

No authority lists the members of the delegation. Plutarch tells us of Plato, Speusippus, Aristippus and Aeschines; Diogenes Laertius of Plato,

Xenocrates, Aeschines and Aristippus; Aelian (*Var. Hist.* VII, 17) of Plato and Eudoxus. No one tells us that Aristotle was there or gives a roster of the visitors which excludes him. Aristotle nowhere gives us an atom of autobiography.

This is, as yet, speculation, but let us, for the moment, assume its truth. Then it would have been proper for Aristotle to present his host with a discourse. The visitors were expected to 'sing for their supper'. If so, then Aristotle, aged twenty-four, would have been likely to deliver something reproductive rather than original. Diogenes Laertius says that Aristippus both presented compositions to Dionysius and wrote some compositions in Doric. Presumably Aristippus' Doric compositions were his gifts to Dionysius. It was a courtesy to discourse to a Syracusan audience in its dialect. Consequently, if the *TL* was Aristotle's gift to Dionysius, we should have a simple explanation why it is in amateurish Doric. Aristotle wished to do the courteous thing but did not know the dialect very well. The amateurish doricising of Speusippus and Xenocrates might be similarly explained.

So far my picture is this. The delegation arrives in Syracuse in the early summer of 361. Dionysius, who had heard Plato delivering the *Timaeus* five years before, wishes to have a *précis* of this unpublished dialogue. Plato permits or desires Aristotle to compose such a *précis*. No copy of the *Timaeus* is in Syracuse, so Aristotle has to produce from his memory, helped out perhaps by that of Xenocrates, the gist of the dialogue that he has studied and restudied during his last five years in the Academy. Plato desires him to put his digest in his own words. The *TL* contains not a sentence and hardly even a phrase quoted *verbatim* from the *Timaeus*, and its eloquence is not Plato's.

The delegates are eagerly absorbing Italian and Sicilian philosophy and science. Archytas' disciple, Archedemus, was a resident in Syracuse, and Plato lived in his house for part of the year. Plato lets Aristotle incorporate in his digest Archytean improvements upon the *Timaeus*, which had itself expounded doctrines of Archytas and Philistion. The *Timaeus* was a scientific and especially a medical manual for the Academy, so it was proper for it to be brought up to date. We might guess that where the astronomy of the *TL* improves on the *Timaeus*, Archedemus had taught Aristotle and Eudoxus new doctrines of his master. Conceivably the Hylemorphism of the *TL* and of Aristotle derived from Archytas, whom, in *Met.* H, 1043a21, Aristotle credits with a Matter–Form doctrine. Among the out-of-the-way

words in the *TL*, three or four are said to be Archytean, including 'harmonic' in its arithmetical sense. The Eurytus story in Ar. *Met.* N, 1092b10, came from a *talk* by Archytas (Theophrastus, *Met.* 6a 19, ἔφη). *Extracts from the 'Timaeus' and the Works of Archytas* would then be a proper title for the *TL*.

I must now both complicate and corroborate this story. I have been identifying the *TL* with Aristotle's *Extracts* but there remains to be accounted for a, seemingly, second paraphrase of the *Timaeus*, if this really is the single lecture which according to the *Seventh Letter* Plato delivered to Dionysius in 367/366. For Dionysius himself is said, coached by unnamed persons, to have produced a version of this single lecture.

The *Seventh Letter* is a Dionist forgery, but where Sicilians would have first-hand knowledge it would need to be veracious, else the gaff would be blown. So presumably Dionysius did deliver a version of the *Timaeus* and some Dionist addressees of the *Seventh Letter* heard him deliver it.

I now suggest that the *TL*, the *Extracts* and Dionysius' version are all one and the same composition. The *Seventh Letter*'s unnamed 'lesser or greater men', 344D, and the 'certain others (who) have written about these same subjects, but what manner of men they are not even themselves know', 341B, are Aristotle, who by the year 353 really could be described as γεγραφότων καὶ γραψόντων and as εἴτ' ἐμοῦ ἀκηκοότες εἴτ' ἄλλων εἴθ' ὡς εὑρόντες αὐτοί, 341C. It might be very significant that 'Plato' mentions pupils of his own in Syracuse. Who could they be save Xenocrates and, hypothetically, Aristotle? Presumably Dionysius took no hand in the composition of the *TL*. Aristotle composed it for Dionysius to deliver, as Isocrates composed the *Nicocles* for Nicocles and the *Archidamus* for Archidamus to deliver. This rather than mere courtesy is the reason why the *TL* is in would-be Doric. If their high-brow tyrant was to discourse to Syracusans it would be in Doric. This too would explain why the *TL* was never ascribed to Aristotle. Not only was it in quasi-Doric; but his hearers credited it to Dionysius. His 24-year-old visiting ghost-writer was not yet a name to them.

To reverse the argument. If Plato's single lecture in 367/366 was the *Timaeus*, then we have contemporary evidence in the *Seventh Letter* that a version of the *Timaeus* was produced by Dionysius before he was ousted in 356. The *TL*, being in would-be Doric and having a fourth-century vocabulary and scientific content, has a strong claim to be identical with this version. Two fourth-century Doric versions of the *Timaeus* would be one too many.

His *Extracts* would be naturally dated early in Aristotle's career, while he is influenced by Archytas and while the *Timaeus* is still unpublished. To identify the *Extracts* with the Syracusan *Timaeus*-paraphrase requires just one very big historical premiss, namely that, though extant Greek literature is silent on the matter, Aristotle did go to Syracuse in 361, did act as Dionysius' ghost-writer, and did study under Philistion and Archytas. Jaeger, in his *Diokles von Karystos*, accounts for the influence of Philistion upon Aristotle by bringing Philistion to the Academy. He adduces as evidence the mention of the Sicilian doctor in the fragment from Epicrates, the invitation to Philistion from Speusippus in the forged *Second Letter*, and the statement of Diogenes Laertius that Eudoxus studied under Philistion (and Archytas). Jaeger overlooks the possible visit of Eudoxus to Syracuse in 361. At least the influence of Philistion upon Aristotle requires *either* Philistion visiting Athens *or* Aristotle going to Syracuse when quite young. Jaeger does not ask, Where and when did Eudoxus and Aristotle learn the doctrines of Archytas? Archytas did not come to Athens, though Archedemus did.

Style. The *TL* is not in Aristotle's lecture style, but nor are his dialogues, or his *De Philosophia* or *Protrepticus*. The *TL* essays eloquence as if intended for an audience. One high-falutin word χειρόκμητος is also in Aristotle's *De Caelo, De Philosophia* and *Meteorologica* and in Democritus.

Aristotle has a penchant for words ending in '. . . ikos' and '. . .ike'. Only in two late dialogues does Plato acquire this habit. It is not strong in the *Timaeus*, or, surprisingly, in the *Characters* of Theophrastus. There are twenty-two such words in the seventeen to eighteen pages of the *TL*, a higher ratio even than in the *Rhetoric* or the *Eudemian Ethics*. Aristotle loves verbs with biprepositional prefixes, like συνεπιτείνειν. There are over a dozen such verbs in the *TL*. Jaeger, in his *Diokles von Karystos*, adduces both idioms as evidence that Diocles learned his Attic from the late Plato and Aristotle. He also adduces Diocles' use of καθάπερ *vice* ὥσπερ, when hiatus was to be avoided. The *TL* uses ὥσπερ once, where there is not, and καθάπερ once where there is a hiatus to be avoided.

Aristotle uniformly prefers φοινικοῦς for 'red' to Plato's ἐρυθρός. So does the *TL*. Aristotle prefers φωσφόρος to Plato's ἑωσφόρος. So does the *TL*. The *Epinomis* uses ἑωσφόρος.

IV. TWO DIFFICULTIES

(1) Simplicius, in a passage cited in the *Fragments* 'On the Philosophy of Archytas', says: '[Aristotle] epitomising Plato's *Timaeus* writes ". . . . . ".' The quotation which follows is not from the *TL*. Simplicius seems to quote Aristotle *verbatim*, so if 'epitomising Plato's *Timaeus*' meant 'in his epitome of Plato's *Timaeus*', i.e. 'in his *Extracts from the "Timaeus" and the Works of Archytas*', the *TL* would not be identical with the *Extracts*, since a sentence found by Simplicius in the latter is not in the former.

I suggest that 'epitomising Plato's *Timaeus*' need not mean 'in his Epitome of Plato's *Timaeus*', but only 'putting succinctly what the *Timaeus* says at greater length'. Aristotle's *Extracts* were not *entitled* 'Epitome of . . .'.

If so, Simplicius could be quoting from any lost work of Aristotle, perhaps from the *De Philosophia*, which he did know. ἐπιτέμνειν is used for 'abbreviate' or 'curtail', and not for 'write an epitome of', in *De Soph. Elench.* 174b29.

The idea that Aristotle's *Extracts* was other than the *TL* would leave it unexplained why nowhere else does Simplicius use it in expounding the *Timaeus*. In my view, the commentators, including Plutarch, did use it; for it was what we know as the *Timaeus Locrus*; they had no idea that Aristotle wrote it. There did not exist an additional *précis* for them to use. They do not mention the *TL* by name because it had no name, or even a namable author. It was just a handy *Timaeus-précis* of unknown origin and of a date which they knew or believed to be early. I guess that some people, including Nicomachus, identified the *TL* with the Pythagorean work from which they uncharitably supposed that Plato lifted his *Timaeus*.

(2) On p. 97c the *TL* speaks of the Sun advancing one degree *per diem*, κατὰ μίαν μοῖραν ἐν ἀμερησίῳ χρόνῳ. If by 'one degree' were meant one 360th of a circle, then the *TL* would be post-Hipparchus, who, in the second century B.C., introduced this metric into geometry. However, Hipparchus was merely generalising from the Chaldean astronomers' division of the Zodiacal circle in particular into twelve equal 'signs', and of each 'sign' into thirty equal sections. These yielded the twelve months of the year and the thirty days of the month. So the Zodiac is divided into 360 sections, or 'Chaldean degrees'.

When did the Greeks get to know this Chaldean division of the Zodiac? Its division into twelve 'signs' was known in Greece before Plato's day.

Both Democritus and Eudoxus might have brought back from the Orient the Chaldean degree with the astronomy that they amassed there, but we have no proof that they did so. Aristarchus, in the third century B.C., must have known it, since he speaks of 1/30 of a right angle, 1/15 of a Zodiacal 'sign', and 1/720 of the Zodiacal circle.

Eudemus mentions a pre-Aristotelian astronomer who divided the Zodiac into fifteenths. This is a nicely sub-divisible fraction of 360, so conceivably he was working with the Chaldean metric.

I claim that the *TL* shows rather that the Chaldean degree was known in Greece or Italy a century before Aristarchus, than that the *TL* is as late as Aristarchus. Or is the *TL* merely saying, tautologically, that the Sun moves through the Zodiac at the rate of 1/360th of its year's progress *per diem*?

5

THE ACADEMY AND DIALECTIC

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1. ARISTOTLE'S 'ART OF DIALECTIC'

A treatise called *The Art of So and So* was a body of general rules, explanations, examples, warnings and recommendations, the study of which was calculated to help the student to become proficient in the practice in question. It was a training manual. Protagoras is said to have written an *Art of Wrestling*. Some people may learn to wrestle well from mere flair, habituation and imitation; but there is much to be learned also from the technical theory of wrestling. The same thing is true of medicine and navigation. Rule of thumb is not enough.

Between the time of Protagoras and that of Aristotle in his early teaching years, there had appeared a considerable number of *Arts of Rhetoric*. This is quite understandable since intelligent and ambitious young Greeks who looked forward to careers in public life needed to be taught how to compose forensic and political orations. Nor, save for a few specialists like mathematicians, astronomers and doctors, was any other higher education provided, until the Academy began. Not all, but many, of the sophists of whom anything is known were, or were *inter alia*, teachers of rhetoric. The training manuals of rhetoric that Plato mentions in his *Phaedrus* (especially

266–7) were all composed by sophists. Some of these *Arts* were versified to aid memorisation by students. Aristotle, too, wrote an *Art of Rhetoric*, which we possess. But what concerns us is something different. He also wrote an *Art of Dialectic*, known to us as his *Topics*. What was the practice of dialectic of which Aristotle's *Topics* is the Art? We know what the practitioners of rhetoric practised, in what circumstances and for what professions or careers. We are not so sure what a student of the art of dialectic hoped to become a practitioner of. We know the kind of career that a Demosthenes had. Was there a corresponding kind of career for a dialectician? If not, then for whom was Aristotle providing a training manual, and for what vocation?

I mention Aristotle's *Art of Rhetoric* alongside his *Art of Dialectic* partly because Aristotle himself closely associates the two practices (*De Arte Rhet.* Book I (1) 11, 12, 14; (2) 7, 8, 9, etc.; *Topics* 164a5, 167b8, 174b19, 183b). Moreover, as we shall see, the exercise which Aristotle calls 'dialectic' had been taught for a long time before Aristotle, anyhow sometimes as an ancillary to rhetoric.

What, then, is this exercise of dialectic, for which the *Topics* is a training manual? There is a special pattern of disputation, governed by strict rules, which takes the following shape. Two persons 'agree to have a battle'. One is to be questioner, the other answerer. The questioner can only ask questions; and the answerer can, with certain qualifications, answer only 'yes' or 'no'. So the questioner's questions have to be properly constructed for 'yes' or 'no' answers. This automatically rules out a lot of types of questions, like factual questions, arithmetical questions and technical questions. Roughly it leaves us only conceptual questions, whatever these may be. The answerer begins by undertaking to uphold a certain 'thesis', e.g. that *justice is the interest of the stronger*, or that *knowledge is sense-perception*. The questioner has to try to extract from the answerer, by a series of questions, an answer or conjunction of answers inconsistent with the original thesis, i.e. drive him into an 'elenchus'. The questioner has won the duel if he succeeds in getting the answerer to contradict his original thesis, or else in forcing him to resign, or in reducing him to silence, to an infinite regress, to mere abusiveness, to pointless yammering or to outrageous paradox. The answerer has won if he succeeds in keeping his wicket up until the close of play. The answerer is allowed to object to a question on the score that, for example, it is two or more questions in one, like *have you left off beating your father?*, or that it is metaphorical

or ambiguous. The duel is fought out before an audience (cf. *Sophist* 230c); and apparently it is sometimes left to the audience to judge whether the questioner or the answerer has won. Certain debating tricks and manoeuvres are recognised as fouls (*Topics* 171b20; 172b20; cf. Plato, *Theaetetus* 167e). The exercise has to have a time-limit, or else the answerer can never win. I think the 'time's up' is referred to in *Topics* 161a10 and 183a25.

In the Greek world in general, elenctic duelling is normally called 'eristic', but this word has acquired pejorative connotations for Plato and Aristotle. They use this word and its variants for commercialised and debased forms of the exercise practised by certain sophists, who stoop to all sorts of tricks in order to make sure of winning. Plato's *Euthydemus* depicts such sophists in action. Aristotle uses the word 'dialectic' for the exercise as practised with intellectual seriousness and without conscious trickery. I shall show that Plato does so too. The word 'eristic' continues to be used, often with no pejorative connotations, after Plato's and Aristotle's time, and I shall regularly use it myself. The word 'dialectic' now carries too many daunting and uplifting associations for us to rely on it.

Why do people engage in eristic Moots? Aristotle gives several reasons:

(*a*) There is the pedagogic or tutorial motive. A student's wits are sharpened if he is made to practise argumentation by trying to defend his own theses against criticisms and by trying to think up and organise criticisms of other people's theses. So the teacher may either himself engage his pupil in eristic bouts, or else pit one pupil against another, subject to his own tutorial criticisms of their arguments. This is dialectic conducted with a *gymnastic* purpose. Obviously students may, for fun and for extra practice, conduct their own matches without tutorial supervision.

(*b*) Sometimes people are intellectually complacent or reckless. They need for the good of their souls and wits to be deflated. When they discover that they can quickly be driven, without trickery, into acknowledging things patently inconsistent with other things which they had felt perfectly sure of, they become warier and intellectually humbler. This is what Aristotle calls the *peirastic* or probing purpose. It is a part or species of the pedagogic or tutorial dialectic.

(*c*) The exercise is an absorbing game—difficult, exciting and competitive. It has much in common with chess and fencing. It is fun to win, and fun even to try to counter one's opponent's stratagems. Aristotle calls this the *agonistic*, i.e. the match-winning, purpose of the exercise. Aristotle

says, what we could have guessed anyhow, that even those who dispute for intellectual gymnastic cannot be stopped from trying to win (*Topics* 164b8–14). The students are, after all, young men; and their instructor, Aristotle, is not very old.

From Plato's *Republic* VII (537–9) (and cf. *Apology* 23C) it appears that by the composition date of this book the eristic game had acquired an unhealthy vogue; and that this had led to scandal or crisis. (See also Isocrates, *Helen* I.) Socrates refuses to let young men engage in the exercise, though their sober seniors may do so. Apparently this really was the initial policy of the Academy. At the end of his *De Sophisticis Elenchis* Aristotle claims to have had to work out the entire *techne* of dialectic by himself. He draws on Plato's dialogues for specimens, but he acknowledges no debts to Platonic tuition in the theory of dialectic. He received no such tuition. Plato did not teach Aristotle philosophy. This ban on eristic for young students has, however, been lifted by the time of the *Parmenides* (Part II). Now Aristotle is already teaching much of the contents of the *Topics*, and teaching it to young men.

(*d*) Some of the sophists, on occasions, put on public tournaments in which, debatably, they take on challengers from the audience, or else challenge one another. Their object is to win at all costs, and so build up such a reputation for invincibility that they will make money—make money, presumably, from the fees of the pupils who will flock for coaching in such duelling, and, conjecturally, from the gate-money paid by the audiences who come to hear the champion performing. This is the prize-fighting or *eristic* purpose, in the pejorative sense that the word has for Plato and Aristotle.

(*e*) Finally, serious philosophers engage in duels with each other from an interest in philosophical issues themselves. Though Euthydemus and Dionysodorus may use as a mere booby-trap the question *Does not he who says that something is the case say something that is the case?*, i.e. *Are not all significant statements true?*, a Plato or an Aristotle will examine this very same question in order to bring out into the light of day the relations between *significance* and *truth*. We may call this the *philosophical* purpose of the dialectical exercise. I shall have more to say later on about this function of dialectic.

In whichever of these five spirits the exercise is conducted, its rules are the same. Certain dodges, employed in sophistic duels, are disallowed in an Academic *milieu* (*Topics* 164b8, 171b21). We cannot from internal evidence fix the date when Aristotle composed the *Topics*. But in 354/3

B.C., i.e. some seven years before Plato's death, Isocrates, in his *Antidosis* (258–69; and cf. his *Panathenaicus* 26–9), makes it clear that the teaching of eristic is, with geometry and astronomy, already a part of the curriculum of the Academy. In the *Panathenaicus* and in his *Letter to Alexander* of 342 he is likely to be sneering at Aristotle in person as a teacher of eristic. Plato, in what must be a late, and I think is his latest finished, composition, the *Parmenides* (Part II), represents the venerated old Parmenides as demonstrating to the young Socrates the intellectual gymnastic which he must practise if he is to become a philosopher. He then produces the most unrelieved and formalised model of a two-way eristic question–answer exercise that has come down to us. The model conforms well with the rules and prescriptions collected in Aristotle's *Topics* for a philosophically serious exercise in dialectic. Plato himself does not here use the words 'dialectic', 'dialectician' or 'dialectical', or, of course, 'eristic', or 'eristical' either. There can be no reasonable doubt, then, that what Isocrates calls 'eristic' and Aristotle calls 'dialectic' is, despite the veto in *Republic* VII, being taught to young men in the Academy in or before the middle 350s; that Plato approves of this teaching; and that Aristotle teaches it, in fairly close connection with his teaching of rhetoric. It is not by coincidence that Plato unearths a coeval of Socrates called 'Aristotle' to be Parmenides' answerer. Xenocrates too must have been closely associated with the teaching of this *gymnastic*. Of his numerous writings the titles of which are recorded by Diogenes Laertius at least five have to do with dialectic, including one, in twenty books, *Of Theses*, another, in fourteen books, τῆς περὶ τὸ διαλέγεσθαι πραγματείας. At least two of the writings of Heracleides Ponticus must also be of this *genre*. That the exercise continues to be an important ingredient of university education throughout the succeeding centuries is shown by, among other things, the book-titles of the later Academics, Peripatetics and Stoics.

II. THE EARLIER HISTORY OF DIALECTIC

The eristic Moot was far from being the invention of Aristotle in particular or of the Academy in general. Its history goes well back into the fifth century. I set down here what I have been able to collect of its history. I shall often use the title 'eristic' for the exercise, though without the pejorative connotations which it acquired for Plato and Aristotle. It was these connotations, I guess, that made Plato coin, as Favorinus says he

coined (D. L., *Plato*, 24), the noun 'dialectic', and therewith 'dialectician' and 'dialectical', from διαλέγεσθαι; this last was the general verb for 'discuss', 'debate' and, specifically, 'discuss by the method of question and answer'. There are two other recurrent titles for eristic disputation. It is sometimes called '*antilogike*', and its practitioners are described as 'antilogical' when emphasis is being laid on their readiness to argue impartially for and against any given thesis. It is sometimes called '*agonistike*', to emphasise the fact that its practitioners are primarily out to win their matches. This match-winning spirit is regularly called φιλονικία by both Plato and Aristotle. We could call it 'eristic gamesmanship'.

Diogenes Laertius credits a number of people with the invention of the eristic duel.

(*a*) *Zeno*. Diogenes Laertius quotes Aristotle as saying that Zeno was the inventor of dialectic; and Sextus Empiricus tells us that Aristotle said this in his *Sophist* (see Aristotle: *Selected Fragments*). Plato virtually says the same thing in the *Parmenides* where he makes old Parmenides tell the juvenile Socrates that if he is to become a philosopher he must put himself through a certain sort of training, namely in the method of reasoning of which Zeno has just produced an example. This method, however, requires a certain expansion. The argumentation should be two-way argumentation, deriving consequences both from a given proposition and from its negative. Parmenides then demonstrates the method in full question–answer style, with his answerer duly responding with 'yes' and 'no'. Commentators sometimes grumble at the unconversational role given to Parmenides' young interlocutor. But it is one of the first rules of the eristic exercise that the answerer has, with certain exceptions, to confine himself to assent and dissent. Cornford, in his translation of the *Parmenides*, omits the young Aristotle's responses, and thus obliterates the eristic procedure and intention of the dialogue. Now Zeno's own argumentation had not, apparently, taken the form of a questioner driving an answerer into elenchus after elenchus. It had been a chain of *reductiones ad absurdum*; and this is probably what Aristotle has in mind. An eristic elenchus is, so to speak, a two-person incarnation of a *reductio ad absurdum*. But it was not Zeno who invented this incarnation. He pitted arguments against arguments. It was someone else who first pitted questioners against answerers. If Zeno was the father, he was not also the mother of dialectic.

(*b*) *Euclides*. According to Diogenes Laertius, Euclides of Megara studied the writings of Parmenides; his followers were called 'Megarians',

'Eristics' and, later, 'Dialecticians' because they put their arguments in the form of question and answer. Euclides, we are told, rebutted demonstrations by attacking, not their premisses (λήμματα), but their ἐπιφορά, which I think must mean the inference from those premisses to their alleged conclusions. Eubulides, a follower of Euclides, is reported to have produced many dialectical arguments in interrogative form, including the famous and important crux 'the Liar'.

Plato and other Socratics are said to have taken refuge with Euclides at Megara after the execution of Socrates in 399. Plato brings old Euclides into the stage-setting of his *Theaetetus*; i.e. as still alive in 369. He is made to say that he had frequently had conversations with Socrates on his visits from Megara to Athens.

Suidas says that Bryson, together with Euclides, introduced the eristic dialectic.

We know very little about the Megarians, but we know enough to satisfy us that they had very sharp noses for important logical cruces. They consequently get short shrift from commentators on Plato, as does Zeno, of whose earthshaking discovery of the *reductio ad absurdum* the Megarians may well have been the transmitters.

(*c*) *Protagoras*. Diogenes Laertius says that Protagoras was the first to say that there are two opposite λόγοι about every subject; and was also the first to argue in this way, by means of questions (συνηρώτα). He was also the first to institute λόγωνἀγῶνας, i.e. eristic matches or duels; he introduced the Socratic Method; and he was the father of the whole tribe of eristical disputants. Protagoras is also reported to have written an *Art of Eristic*, and this may be hinted at in Plato's *Sophist* (232D–E). It seems to me that we have good reasons for thinking that Protagoras did introduce the exercise into Athens; and that he was the first to give coaching in its techniques and to do so for a fee. As a teacher of rhetoric, wishing to train his pupils for forensic advocacy, he might well have invented the questioner–answerer Moot. The title of his *Art of Eristic* is strong evidence for the association of Protagoras with eristic; Diogenes' explicit statements are weak evidence. But we also have ample corroboration in both Isocrates and Plato.

At the beginning of his *Against the Sophists*, which can be dated *circa* 390, Isocrates scolds the teachers who devote themselves to disputation (τῶν περὶ τὰς ἔριδας διατριβούντων). They profess to search for the truth; they promise to teach the young what to do and how to prosper; they inculcate

virtue and self-control; they claim to be able to foretell the future; they charge fees which have to be deposited with a person of trust before the course of instruction begins. Now Protagoras did write a famous lecture-treatise called '*Truth*', and Plato tells us in the *Theaetetus* (178D–9A) that he claimed to foresee the future. All the rest of Isocrates' charges fit Protagoras, though maybe not only Protagoras. So Isocrates almost certainly associates Protagoras with eristic and the teaching of it. Isocrates in his *Helen* (2) again associates Protagoras with eristic.

Plato associates Protagoras with eristic in the *Protagoras*, *Theaetetus* and *Sophist*. In the *Theaetetus* (167D–8), Socrates, acting as spokesman for Protagoras, makes Protagoras say that his critics may either set up a doctrine in opposition to his own, or 'if you prefer the method of questions, ask questions; for an intelligent person ought not to reject this method, on the contrary he should choose it before all others'. He goes on to distinguish the mere match-winning eristic from the serious, truth-hunting eristic and urges his critics to pursue the latter, since familiarisation with the match-winning eristic nauseates the young with philosophy (cf. *Rep.* 537–9, and *Phaedo* 89–90). In Plato's *Protagoras* (329B), Protagoras is described as being able to deliver a long and excellent speech, but also as able when questioned to reply briefly; and after asking a question to await and accept the answer. When Socrates at a later stage asks Protagoras to confine himself to brief replies, Protagoras huffily says, 'I have undertaken in my time many disputation-matches (ἀγῶνα λόγων) and if I were to do what you demand and argue in just the way that my opponent (ὁ ἀντιλέγων) demanded, I should not be held superior to anyone. . . .' The expressions ἀγῶν λόγων and ὁ ἀντιλέγων were standard parts of the parlance of the eristic exercise. The dialogue largely consists of regulation question–answer moves, which duly result in Protagoras being driven to contradict his original thesis, but result also in Socrates' own position being turned upside down. At one point, when Protagoras has lost his temper (337A–B), Prodicus exhorts Protagoras and Socrates ἀμφισβητεῖν μεν, ἐρίζειν δὲ μή (cf. *Theaetetus* 167E–8A). Hippias urges the appointment of an umpire (ἐπιστάτης). The idea is rejected as unworthy of serious thinkers, but it is interesting as suggesting, what would *a priori* seem necessary, that at least in the students' Moots and in the exhibition bouts staged by sophists the contests may have been umpired. In the *Sophist* (225E) Plato may, but need not, be alluding to Protagoras, *inter alios*; at 232E, Protagoras is mentioned as the author of *Arts* of wrestling and of a lot of other things;

and, since what is in question is the possibility of anyone writing an *Art* which could teach people how to dispute on any subject whatsoever, it may be that Protagoras' *Art of Eristic* is being alluded to. Though Plato thus associates Protagoras with the eristic exercise, he nowhere hints that he invented it or even introduced it into Athens. Protagoras probably died in about 411 B.C., aged seventy. So the eristic exercise must have been a familiar thing well before the last decade of the fifth century.

(*d*) *The Dissoi Logoi*. At the end of Diels-Kranz' *Fragmente der Vorsokratiker* there is a little piece, entitled '*Dissoi Logoi*' from a phrase occurring both in its first sentence and elsewhere in the piece. '*Dissoi Logoi*' means 'Arguments Both Ways'. The *Dissoi Logoi* is, for the most part, a sequence of theses, generally shocking ones, about each of which are marshalled first an array of arguments *pro* and then an array of arguments *contra*. Among the arguments *contra* the thesis that *Virtue is not teachable* there is one shrewd argument which, together with an illustrative example, Plato also employs, putting it into the mouth of Protagoras in his *Protagoras* (327E–8C). This, with some corroborative evidence, strongly suggests that the backbone of the *Dissoi Logoi* derives from Protagoras himself, though some stretches, including a mention of the result of the Peloponnesian War, which was posterior to Protagoras' death, must be additions by a later hand. The whole piece is highly pemmicanised, somewhat jumbled, and fragmentary. It is written in amateurish Doric, with plenty of Ionicisms.

These arrays of *pro* and *contra* arguments seem to be designed for memorisation by students as ammunition for their questionings and answerings in eristic Moots. The piece as a whole may, therefore, have been or belonged to a primitive *Art of Eristic*. Aristotle alludes scathingly to such primitive *Arts of Eristic* at the end of his *De Sophisticis Elenchis* (183b35–184a10). His description of them fits the *Dissoi Logoi* well. It teaches arguments; not how to argue. At the least the *Dissoi Logoi* shows us not only that, but also in some degree how, students were being trained for participation in eristic Moots before the end of the fifth century B.C. They committed to memory batches of recommended points for and against some standard theses. It is worth noticing that the author of the piece, speaking of himself as 'I', sides with the arguments *contra* the cynical or nihilist theses. Like the Socrates of Plato's Socratic dialogues, he wants the arguments *pro* and *contra* to be fairly pitted and weighed against one another, but he does not want the cynical or nihilist theses to win. He marshals the Worse and the Better Reasons, but his heart is with the Better Reasons.

(*e*) *The Hippocratic Writings. The Nature of Man*[1] is thought to date between 440 and 400 B.C. Its author begins by criticising some people, not physicians, who discourse on What Man is Made Of. They are eristic debaters (ἀὐτοῖσιν ἀντιλέγουσιν).

> Given the same debaters and the same audience, the same man never wins in the discussion three times in succession, but now one is victor, now another, now he who happens to have the most glib tongue in the face of the crowd. Yet it is right that a man who claims correct knowledge about the facts should maintain his own argument victorious always, if his knowledge be knowledge of reality and if he set it forth correctly. But in my opinion such men by their lack of understanding overthrow themselves in the words of their very discourse.
>
> [Tr. W. S. H. Jones.]

This passage shows or suggests several interesting points. Eristic matches were familiar things before and perhaps well before the end of the fifth century B.C. They were conducted before audiences, and it was the audience that decided who had won. A given thesis would come up again and again for discussion, and the same debater might attack or alternatively defend the same thesis on several successive occasions. So he could and presumably would re-employ, discard or reshape arguments that he or others had used in previous Moots. Thus we can infer that as theses were, in some measure, stock topics, the arguments for and against them would enjoy an evolution by the progressive mending of proven weaknesses. The deliberate study of the profits and losses of particular eristic tactics was possible and expedient. Two or three generations later Aristotle was to provide a theoretical basis for such study. In his *Topics* (105b12; and 163b17) Aristotle gives concrete tutorial advice to students on how to prepare for debates upon the themes that regularly crop up.

Against this background, the recurrence of the problem *Is Virtue Teachable?* in Plato's *Laches, Protagoras, Euthydemus, Meno* and [*Alcibiades*] becomes explicable. It had been canvassed in the *Dissoi Logoi*, and Isocrates gives his own negative answer to it at the end of his *Against the Sophists*. There were compositions on this theme by Crito, Simon, Antisthenes and Xenocrates. It was a constant Moot point, and consequently the arguments to it were

[1] Hippocrates, Loeb edition, vol. IV, p. 5.

in development. The frequent phrase λόγον διεξίενοαι might therefore mean 'go through a sequence of argument-moves'. Chess-players call their analogous sequences 'combinations'.

Conceivably, too, if Plato composed his early dialogues with *antilogike* going on under his nose, then, some of their argumentative content reflects the actual argumentation of recent Moots. Perhaps these dialogues were, in part, dramatised 'documentaries' of 'combinations' recurring there.

This would explain (1) why the *Protagoras* contains a well-organised argument for the Hedonistic Calculus, though adjacent dialogues exhibit little interest in Hedonism; (2) why the *Protagoras* repeats argument-moves already made in the *Dissoi Logoi* and the *Laches*. Effective 'combinations' become stock-in-trade of the Game; (3) why these pre-*Republic* dialogues culminate not in doctrines but only in eristic checkmates. If a Moot has a finish, it ends in an elenchus.

(f) *Euthydemus and Dionysodorus*. Early in the *Euthydemus* Socrates says that the two sophists learned their brand of eristical all-in wrestling only a year or two before the dramatic date of the dialogue, i.e. before *circa* 402 B.C. They give exhibitions of their art and also, for a fee, tuition in it. They are exponents of the match-winning eristic from which Protagoras dissociated himself. The sophist Dionysodorus may have been a pupil of Protagoras.

At 275c the lad Cleinias is described as having already had a good deal of practice in disputing (διαλέγεσθαι) and the answering of questions. This suggests that the uncorrupted eristic exercise had become popular with the young men by the last decade of the century. What was new to them was eristic prize-fighting, though they could swiftly pick up the tricks of it. In the course of the dialogue Socrates exhibits a couple of pieces of philosophically serious and edifying eristic. He does not even altogether despise the sophists' eristic tricks. He thinks that he and others ought to find out how to cope with them. Aristotle, in his *Topics*, does deal fairly carefully with a number of the 'Sophistical Elenchi' that fill the *Euthydemus*.

(g) *Socrates*. Nearly all the specimens that we possess of eristic exercises are the elenctic question–answer operations with which, in his early dialogues, Plato credits Socrates. We have to distinguish, as commentators have not always distinguished, between, on the one hand, mere philosophical discussions and, on the other hand, the rule-governed concatenations of questions, answerable by 'yes' or 'no', which are intended to

drive the answerer into self-contradiction. The latter is what should be meant by 'the Socratic Method'. Socrates himself is made to say in the *Apology* (27), ἐὰν ἐν τῷ εἰωθότι τρόπῳ τοὺς λόγους ποιῶμαι, before notionally driving his prosecutor into an elenchus by a duly concatenated sequence of questions. With much or little dramatic or merely conversational relief, eristic exercises dominate, or at least feature largely in *Laches*, *Lysis*, [*Alcibiades*], *Euthyphro*, *Charmides*, *Hippias Major* and *Minor*, *Protagoras*, *Ion*, *Euthydemus*, *Gorgias*, *Meno* and *Republic* I. There is a short stretch in the *Symposium*; a little in the *Phaedo*; and the short stretch, just mentioned, in the *Apology*. The bulk of the *Cratylus* is not eristic in method, but the last twelve pages are. By contrast, there is virtually none of it in the *Crito*, in the last nine books of the *Republic*, in the *Philebus*, *Phaedrus* or *Theaetetus*. There is no place for it in the *Timaeus* or *Critias*; or in the *Laws*, which last makes few pretences to being more than lectures. In the *Parmenides*, Part II, of course, we get our one full-scale, undramatised, even unmitigated, model of a two-way eristic exercise; but here the questioner is Parmenides, not Socrates. The *Sophist* and *Politicus* are conducted not by Socrates but by the Eleatic Stranger, and he does not discuss eristically, even in the debate about the Greatest Kinds in the *Sophist*. It is interesting to speculate why a pattern of argument which had dominated the Socratic dialogues prior to Book II of the *Republic* was abandoned almost altogether from then until the *Parmenides* (II). Which Platonic Socrates are we to believe in, if either, the one who does or the one who does not employ the Socratic Method?

A propos this question, there is a curious feature of the *Theaetetus*. At the beginning and the end of the dialogue Socrates declares, almost apologetically, that his sole intellectual power is the 'maieutic' one. He can extract ideas from his answerer and test them, if necessary, to destruction. In Aristotle's parlance, he is capable only of *peirastic* cross-questioning, or what the Eleatic Stranger describes as the 'cathartic' elenchus, in the *Sophist* (230–1). Yet in his actual discussion Socrates does not handle Theaetetus as his ἀντιλέγων. Certainly some of Theaetetus' suggestions are examined and demolished, but so are some of Socrates' own suggestions and those of Protagoras who is not there to defend them. There is excellent debate, and the debate generates ἀπορίαι; but they are ἀπορίαι for Socrates as much as for Theaetetus. Save in a few very brief stretches the argumentation has not got the eristic shape or style. So we seem to be presented with an emphatic and repeated apologia for Socratic eristic accompanying a variety of philosophically admirable arguments which are not typically

eristic or characteristically Socratic. The rules of the eristic Moot are almost audibly in control in, e.g., the *Protagoras, Euthydemus, Gorgias* and *Republic* I. They are not easily, if at all, audible in the rest of the *Republic*, the *Phaedrus*, the *Theaetetus*, the *Philebus*, the *Sophist* or the *Politicus*.

Did the real Socrates, as distinct from the Platonic Socrates of the pre-*Republic* dialogues, practise the eristic method? We do not believe Plato when he represents old Parmenides as giving a full-scale demonstration of what Aristotle's *Topics* is the *Art* of; so perhaps we should not believe Plato when he represents Socrates as repeatedly forcing elenchi by concatenations of questions. Here we are without any relevant testimony from Isocrates or, surprisingly, from Diogenes Laertius; and we are without the evidence of treatise-titles. The fact that two presumably loyal Socratics, Plato and Antisthenes, both propagated the eristic technique, one in dialogues, and the other, probably, in primitive training manuals, is some evidence for their common master having taught them the use of it. When Aristotle credits Socrates with the invention of 'Induction' in his *Metaphysics* (1078b), he credits him with one of the dialectical procedures that he describes in his own *Topics*. Certainly Socratic Induction could have been used independently of eristic cross-questioning, but its incessant employment in Plato's early dialogues, and Aristotle's treatment of it as a part of dialectic suggests that it did, in fact, first live as a specifically dialectical procedure.

Subject to the debated proviso that Xenophon's ideas of the Socratic Method may all derive from Plato's dialogues, his *Memorabilia* supports the view that Socrates did practise the eristic method. Xenophon employs the semi-technical terminology of the eristic exercise in his *Memorabilia* (III, viii, 1; IV, iv, 9; IV, v, 12 to vi, 1; IV, vi, 13–15; and IV, viii, 11). I do not suppose that Xenophon understood this parlance, or that he would have recognised an elenchus if he had met one. Even more significantly, he consistently represents Socrates as asking one question after another. But, with a few exceptions, the questions are rhetorical questions, Socrates' positive views expressed in interrogative form. Their sequence does not depend on whether the answerer says 'yes' or 'no'. His interlocutor is not an adversary, and the questions do not drive him into checkmate, but merely lead him to a wiser view. It looks as if the unphilosophical Xenophon is garbling something that he has heard and misunderstood about Socrates' conduct of discussions; and this is some independent evidence that Socrates had used the Socratic Method, though independent only if

Xenophon was not merely garbling the Platonic representations of Socrates at work. At least he was not plagiarising Plato.

In the slender fragments from the dialogues of Aeschines given in chapter XI of G. C. Field's *Plato and His Contemporaries*, Socrates is represented as plying his interlocutors with chains of questions. Unlike Xenophon, Aeschines is known to have been a close associate of Socrates. Aristophanes, in the *Clouds*, certainly accuses Socrates of pitting the Worse against the Better Reason, i.e. of teaching the young men to argue as forcibly against a respectable thesis as in its favour. But this does not prove that the argumentation was of the question–answer pattern. Anyhow, Aristophanes might be pinning on to Socrates things that belonged elsewhere, e.g. to Protagoras, as he certainly pins 'physical' theories about Air on to Socrates which belonged to Diogenes of Apollonia. However, Aristophanes employs a few of the semi-technical dictions of the eristic exercise; and both the Worse Reason and Pheidippides assail their interlocutors with tail-twisting interrogations. So I think that by 423, or else by the time when he revised his *Clouds*, Aristophanes did associate Socrates with something like the Socratic Method.

If the earlier argument is allowed, that eristic was practised and taught by Protagoras, then Socrates would have been familiar with it before he was elderly. If so, then it seems likely that he would have realised at least its *peirastic* potency.

In sum, I think we are warranted in taking it that the Socratic Method was the method of the real and not only of the Platonic Socrates. We have good reason to think that he did not invent it or introduce it into Athens; but probably he improved its armoury and techniques. Possibly he emancipated it from rhetoric. But if we doubt the biographical authoritativeness of Plato's dialogues, Protagoras seems more important in the history of dialectic than was the real Socrates.

(*h*) *Antisthenes*. We know little about Antisthenes. He is thought, but not known, to have died, aged ninety, in about 366 B.C. He probably studied rhetoric under Gorgias, and he had pupils of his own, some of whom he took with him to sit at the feet of Socrates, i.e. before 399. His school is likely to have been, in the first instance, a school of rhetoric, since a good many of his writings appear from their titles to deal with standard rhetorical themes. What is of interest to us, however, is that his titles include περὶ τοῦ διαλέγεσθαι ἀντλογικός, Σάθων ἢ περὶ τοῦ ἀντιλέγειν, περὶ ὀνομάτων χρήσεως ἐριοτικός, περὶ ἐρωτήσεως, καί ἀποκρίσεως and

δόξαι ἢ ἐριστικός. All or some of these were probably training manuals, and show that the teaching of eristic, presumably as an ancillary to the teaching of rhetoric, had become an established thing well before Aristotle came to the Academy. Aristotle himself, at the end of his *De Sophisticis Elenchis*, speaks witheringly of the quality of the training manuals of eristic that his fee-taking predecessors had composed. We have no reason to suppose that he here has Antisthenes particularly in mind. I think the reference to fee-taking indicates that it is Protagoras whom he has chiefly in mind. But Aristotle's statement corroborates the impression given by the titles of Antisthenes' writings that there had for quite a long time been a market for technical instruction in eristic. Even if the training manuals that preceded Aristotle's *Topics* were merely cram-books of *pro* and *contra* arguments, written down to be memorised by the students, and quite devoid of any general theory, still the fact of their existence shows us the pre-Aristotelian beginnings of an interest, however vocational, in the Art of elenctic argumentation. It had become a proficiency to be acquired and a subject to be studied. It had a careers-value. But it was also interesting. This interest was to develop into what we know as 'philosophy'.

(i) *Plato*. Diogenes Laertius in his *Plato* (48), confusing, as others have done, the production of dialogues with the production of dialectical arguments, says 'in my opinion Plato, who brought this form of writing to perfection, ought to be adjudged the prize for its invention as well as for its embellishment. A dialogue is a discourse consisting of question and answer on some philosophical or political subject, with due regard to the characters of the persons introduced and the choice of diction. Dialectic is the art of discourse (τέχνη λόγων) by which we either refute or establish some proposition (ανασκευάζομεν τι ἢ κατασκευάζομεν) by means of question and answer on the part of the interlocutors.' Later (79) he says that Plato 'was the first to frame a science for rightly asking and answering questions, having used it himself to excess'. In his *Arcesilaus* (28) he says, obviously erroneously, that Arcesilaus was the first to argue on both sides of a question (εἰς ἑκάτερον ἐπεχείρησε), and the first to meddle with the system handed down by Plato and by means of question and answer to make it more clearly resemble eristic. So it looks as if a tradition grew up according to which dialectic was a Platonic invention. I think that the word 'dialectic', with its inflections, was invented by Plato. The eristic or dialectical exercise was not invented by him, or even by his own master, Socrates. When Aristotle says that Plato's forerunners did not participate in

dialectic (*Metaphysics* A 987b), he cannot mean merely that they had not got the word 'dialectic'. But Aristotle is surely here referring only to the forerunners whom he had just been describing, namely the Pythagoreans, not to Plato's forerunners in general.

III. PLATO'S DIALECTIC VIS-À-VIS ERISTIC

We have seen that what Aristotle means by 'dialectic' is just what other people meant by 'eristic', save that Aristotle is, in the main, concerned with those question–answer matches which are conducted in a pedagogically or philosophically serious spirit. But what about Plato? His accounts of dialectic in *Republic* VII, *Phaedrus Philebus* and *Sophist* give such lofty places in knowledge to the results of dialectical thinking that he seems to be talking about something entirely different from what the *Topics* is the Art of. We get the impression that in the Academy, at the same moment, the word 'dialectic' is being used in two entirely different ways, in one of which dialectic has everything, in the other nothing, to do with the Moots that are held, so to speak, on Wednesday evenings between a young Coriscus and a young Theophrastus, with the not very old Aristotle or Xenocrates acting as coach, umpire and time-keeper. I shall try to establish that for Plato, as for Aristotle, the concrete or, so to speak, Wednesday evening activity of prosecuting dialectic *is* the eristic match conducted in an academic spirit; that where Plato differs from Aristotle—and also from himself—is in his accounts of the philosophical profits of the exercise; and that even here some of Plato's accounts of these profits are not more disparate from those given by Aristotle than we should expect from our knowledge of Aristotle's addiction to logical and methodological enquiries, as well as from our knowledge of the growth and systematisation of the special sciences in the Academy.

In the *Cratylus* (390C) Socrates says, 'And the man who knows how to ask and answer questions you call a dialectician?' In the *Meno* (75C–D) he says, 'If my questioner were a professor of the eristic and contentious sort (εἰ μέν γε τῶν σοφῶν τις εἴη καὶ ἐριστικῶν τε καὶ ἀγωνιστικῶν ὁ ἐρόμενος) I should say to him: I have made my statement; if it is wrong, it is your business to examine and refute it (ἐλέγχειν). But if, like you and me on this occasion, we were friends and chose to have a discussion together, I should have to reply in some milder tone more suited to dialectic (πραότερόν πως καὶ διαλεκτικώτερον). The more dialectical

way, I suppose, is not merely to answer what is true, but also to make use of those points which the questioned person (ὁ ἐρωτώμενος) acknowledges that he knows.' Here we get the contrast, credited to Protagoras and constantly made by Plato and Aristotle, between the match-winning and the truth-hunting spirits in which the question–answer exercise may be conducted, with the adjective 'dialectical' used just as Aristotle uses it.

In the *Republic*, VII (534), dialectic is set up in a sovereign position over the so-called sciences. But in 537–9 we are told of the immense evil of insubordination that at present accompanies dialectic. For a young man of twenty or so, 'when met by the question What is beauty? and, having given the answer which he used to hear from the legislator, is confuted by the dialectic process (ἐξελέγχῃ ὁ λόγος); and when frequent and various defeats have forced him to believe that there is as much deformity as beauty in what he calls beauty, and that justice, goodness, and all the things which he is used to honour most are in the like predicament' he will become cynical and lawless. So only selected thirty-year-olders are to be introduced to dialectic. 'Whenever boys taste dialectic (τῶν λόγων) for the first time, they pervert it into an amusement and always employ it for purposes of contradiction, imitating in their own persons the artifices of those who study refutation (τοὺς ἐλέγχοντας) delighting, like puppies, in pulling and tearing to pieces with logic (τῷ λόγῳ) anyone who comes near them.' The senior men, however, will imitate those who are resolved to discuss and examine truth, rather than those who play at contradiction (παίζοντα καὶ ἀντιλέγοντα) for amusement. Here, too, Plato is distinguishing dialectic from match-winning eristic by the different spirits in which the same question–answer disputation exercise is conducted.

In the *Phaedo* (75C–D and cf. 78D) we hear of '. . . absolute beauty and the absolute good and the just and the holy and, in short, with all those things which we stamp with the seal of "absolute" both in our questions when we are questioners and in our answers when we are answerers.' Plato does not here use the word 'dialectic'; but he is surely referring to some regulation question–answer disputations and saying that the Theory of Forms is common to both sides in these disputations. So apparently these disputations were philosophically serious, and conformed to the pattern described by Aristotle. In the *Republic*, V (454A) Socrates distinguishes the Art of *antilogike* from dialectic, those who employ ἔριδι from those who employ διαλέκτῳ against one another. The former are content with making empty verbal points. But both are in pursuit of τοῦ

λεχθέντος τὴν ἐναντίωσιν. The concrete procedure of dialectic is for Plato just what it is for Aristotle. It is the *proper* employment of the method of driving an answerer into elenchi by strategically arranged sequences of questions. See also *Philebus* (17A) and *Theaetetus* (161E).

Next, Plato and Aristotle are in complete or considerable agreement about the subordinate values of elenctic cross-questioning.

(*a*) What Aristotle calls 'peirastic' (e.g. *Topics* 169b26) is the dialectical method as employed to prick the bubble of an individual's intellectual conceit. He thinks he knows things, but is driven to concede propositions which he recognises to be inconsistent with what he thought he knew. Plato does not use the noun '*peirastike*', but he and Aristotle both use the phrase πεῖραν λαμβάνειν (Aristotle's *Topics*, 171b4; Plato, *Gorgias*, 448A; *Protagoras*, 348A; *Euthydemus*, 275B; cf. *Theaetetus*, 157C). In his *Sophist* (229–30, especially 230B–D) Plato gives a full account of how his last variety of sophist, who merits a better title than 'sophist', purges, by cross-questioning, the false conceit of knowledge. At the beginning of the *Theaetetus* (149–51D and cf. 210C) Socrates explains at length how his powers are only 'maieutic', emphasising that his kind of midwifery involves the extinction of sham offspring.

(*b*) The *gymnastic* value of dialectic, mentioned by Aristotle (e.g. *Topics* 159a25, 161a25, 164a12), is what old Parmenides gives as the reason why the young Socrates should practise the two-way Zenonian method. This training exercise is indispensable for the young man who wishes to become a philosopher (*Parmenides*, 135–6). It is an interesting fact that Socrates must be about twenty years old, just the age at which in the *Republic*, VII, Plato had found it dangerous for people to get a taste of dialectic. Plato seems to have changed his mind. Probably dialectic practised under tutorial surveillance was proving less demoralising than he had previously feared or found. Or there may be an explanation of a quite different kind. In the *Phaedrus* Plato acknowledges, what he had denied in the *Gorgias*, that there is teachable Art of Rhetoric, but he requires that the student of it must also learn psychology and, more conjecturally, dialectic (265–6, 269E–72B, 273D–4A, 277B–C). Presumably, such a student would be of the normal age of a student of rhetoric, i.e. a young man. Even Isocrates, whose educational ideals were far from Platonic, admits the gymnastic value of astronomy, geometry and eristic, in *Antidosis* and *Panathenaicus* (loc. cit.). These studies should, however, be dropped when student days are over. When he speaks of these studies as being good

training for 'philosophy', he means by 'philosophy', 'rhetorical and literary culture'.

(*c*) Both Plato and Aristotle rank *agonistic* eristic low. Aristotle's strictures, however, are less wholehearted than Plato's, though even Plato now and then lets Socrates score by fairly unscrupulous argumentative tricks. Aristotle allows himself to give a good many tips in eristic gamesmanship. He is, after all, a much younger man than Plato, and probably by nature more of a controversialist. (On eristical gamesmanship see *De Sophisticis Elenchis, passim*; also *Topics* 111b12; 112a10–15; 134a3; 142a32; 148a21; 155b25–7a5; 158a25–30; 159a16–25; 163b–4b.)

(*d*) Plato and Aristotle are entirely at one in their contempt for sophistical eristic, i.e. eristic prize-fighting.

(*e*) *The Philosophical Value of Dialectic*. First for a verbal point. When Aristotle uses the word 'philosophy', save when he speaks of First Philosophy, he normally has in mind what we mean by 'science'. Thus arithmetic, geometry, astronomy and medicine are for Aristotle branches of philosophy. In this sense of 'philosophy' dialectic is not the whole or even a part of philosophy, though it is in important ways ancillary to scientific knowledge. Plato, on the other hand, sometimes equates the dialectician with the philosopher, as we ourselves would nowadays do; though sometimes he talks in Aristotle's idiom and treats, e.g., geometry as a branch of philosophy (*Theaetetus* 143D and *Philebus* 56D–E, 57C–D). We have recently, though only recently, come to use 'philosopher' in contrast with 'scientist', and are therefore surprised to find the Aristotelian non-equation 'dialectician ≠ philosopher'. Realisation of this partial terminological divergence of Aristotle from Plato by itself reduces a good deal the apparent gap between their views about the major value of dialectic.

Next, Plato and Aristotle agree almost completely that the dialectician's concern is with what is 'common' to, i.e. shared by and neutral between, the various special branches of knowledge. He is concerned with those 'common' concepts which are ubiquitous or trans-departmental; or with those truths which are in some way presupposed by all alike of the proprietary truths of the special sciences. The concepts of *existence, non-existence, identity, difference, similarity, dissimilarity, unity* and *plurality* are such 'common' or ubiquitous concepts (see Plato, *Theaetetus* 185–6; *Sophist* 254–9; and *Parmenides*, 136; compare Aristotle, *Metaphysics* 995b19–26; 998b; 1004a; 1004b–5a18). But in the main Aristotle's emphasis is less on the ubiquitous *concepts* than on the trans-departmental *truths*. Even here, however, he

has, or may have, Plato with him in one of his moods; for in *Republic* VII (532–3), arguably, the 'hypotheses' of the special sciences and, presumably, the unpostulated first principle or principles are truths and not concepts. (For the trans-departmental truths with which the dialectician is concerned see Aristotle: *Topics* 101a34–b4; 115b7–15; 170a20–170b11; 171b35–172b8; *Met.* 1005a19 et seq.; *Rhet.* 1(1), 14; ii, 21; iv, 6.) Nor is there a total disparity between Aristotle's view of the role of dialectic *vis-à-vis* the special sciences and the view that Plato had held in *Republic* VII. True, for Aristotle the special sciences rest on their special axioms, and these departmental axioms are not the mere postulates which Plato held them to be. So for Aristotle there is no question of dialectic being a hunt for trans-departmental axioms from which the departmental principles of the special sciences will be deducible. Apparently Plato, at one time, did hold this view, though he gives us no specimens of his super-axioms. So far Aristotle does differ from Plato and, to put it bluntly, is right where Plato had been wrong. From completely topic-neutral premisses, the truths of the special sciences *could* not follow.

On the other hand, it really is the business of dialectic, according to Aristotle, to be in some way analytical or critical of the departmental axioms of the special sciences; though he does not clearly explain how or why these axioms require or benefit from such criticism. Some trans-departmental principles, which do not function as axioms, are presupposed by the special axioms of all the sciences, and the Principle of Non-Contradiction is one such principle. The establishment of such underlying and neutral principles is still eristic in pattern. (See *Met.* 1004b15–27; 1005a19 et seq.; 1006a16–28; 1012a17–28; *Topics* 101a35–b4; 155b10–16; 163b8–12.) In *Met.* 1005b7 Aristotle requires the philosopher to study, *inter alia*, the principles of syllogistic reasoning, though 'syllogistic' may here have, not the highly determinate sense that it gets in the *Prior Analytics*, but only the very broad sense that it has throughout the *Topics*. As we might put it, there are trans-departmental Formal or Logical principles presupposed by the departmental truths of the special sciences; and these logical principles need to be extracted, and can be extracted only by dialectic.

So Plato and Aristotle both credit dialectic with the task of discovering some very important trans-departmental principles which hinge on the ubiquitous, non-specialist or 'common' concepts. They differ about the status of these principles. Plato and Aristotle are talking about the same

exercise, but Aristotle is controverting an important error in what Plato had said about its philosophical proceeds. Even so, when Aristotle comes to speak of First Philosophy as the Science of Being *qua* Being, he seems to be moving nearer to Plato's position in the *Republic*.

However, in his *Phaedrus* (265–6), *Politicus* (286) and, more debatably, *Philebus* (16–18), Plato seems to give a role to dialectic quite different from that given in the *Republic*. We hear no more of the discovery of non-hypothetical first principles functioning as super-axioms for all the special sciences; nor is any reason given for the disappearance of this view. Perhaps daily intercourse with mathematicians, astronomers and other researchers had taught him that no such super-axioms were to be looked for, since their absolute generality or formality would prevent special or material consequences from being derivable from them. Nor had the lack of them prevented new geometrical, astronomical or physiological truths from being discovered. Plato, now, in the *Phaedrus*, the *Politicus* and, debatably, the *Philebus*, seems closely to connect the task of dialectic with the tasks of Definition and especially Division, i.e. the tasks of articulating higher or more generic kinds into their lower, more specific kinds. He is tempted to treat this articulation as being necessarily dichotomous, though he prudently resists this temptation some of the time. In the *Sophist* and *Politicus* we are presented with detailed Kind-ladders, on the bottom rungs of which are the concepts of *sophist* and *statesman*. The pedagogic value of trying to build such ladders of kinds was doubtless considerable. The ideal of systematic Definition probably derives from such exercises in Division. But it is immediately clear that eristic cross-questioning cannot be the way of constructing such ladders of kinds. The answerer could not be driven into elenchus by rejection of a suggested division. Aristotle saw this (*Posterior Analytics* 91b). Nor, for that matter, does Plato make his Eleatic Stranger try to establish his divisions by eristic argumentation. A chain of *summa genera*, *genera*, *species*, *sub-species* and *varieties* is not a chain of axioms, theorems and riders. But what is more, it cannot, in general, be deductively established or established by *reductio ad absurdum*. The work of a Linnaeus cannot be done *a priori*. How could Plato, who knew exactly what question–answer arguments were really like, bring himself to say, if he did say, that the philosophically valuable results of such arguments are Kind-ladders? In the jewelled examples of the Socratic Method that fill, e.g., the *Protagoras*, *Gorgias* and *Republic* I not a single Kind-ladder is or could have been established. Quite often, of course, Socrates has to draw

attention to differences between different species of a genus, just as, very often, he has by means of his Induction to draw attention to their generic affinity. But until we get to the *Sophist* we have nothing reminding us of the contribution of Linnaeus to botany; nor should we have been grateful or philosophically enlightened if we had. No such divisions result out of the dialectical operations in the *Parmenides* (Part II).

Before trying to assess the claims made by Plato for Division and for Definition (in *Phaedrus* 265–6), let us consider what place is actually occupied by Division and Definition in the curriculum of the Academy. In his *Topics*, especially Book VI, Aristotle describes carefully various failings to which debaters' definitions are liable. But he does not here introduce his students to the Rules of Definition. They know them already. Similarly, in his *Rhetoric*, though he frequently employs division and constantly produces definitions, mostly very good ones, of virtues, passions, temperaments, etc., he does not have to explain what he is doing.

The so-called '*Platonic*' *Definitions* contains nearly 200 definitions or would-be definitions. For some of the terms to be defined half a dozen or a dozen different definitions are provided. Quite a lot, though far from all, of the definitions are or try to be of the Genus–Differentia pattern; and quite a lot of them embody semi-logical or semi-philosophical parlance, apparently of Aristotelian provenance. Two or three of the definitions have been culled from Plato, and eight or nine may have been culled from Aristotle. But most of the terms defined are unsophisticated terms of so little scientific or philosophical interest that any adolescent would be familiar with them; and a large number of the definitions offered are amateurish or even puerile. Over a dozen of the definitions are or closely resemble definitions which are justly demolished in the *Topics*.

It seems plausible to suppose, and I shall boldly assume, that the '*Platonic*' *Definitions* is a class album of definitions, partly culled from Plato, Aristotle and maybe Xenocrates, etc., but mostly subscribed as beginners' essays by Aristotle's pupils themselves. To put it anachronistically, Definition was a Pass Moderations subject for freshmen in the Academy. These beginners were not yet supposed to know any science or dialectic. They were not yet even being taught rhetoric. Not one of the scores of definitions in Aristotle's *Rhetoric* has been garnered into the album, though two or three dozens of the terms defined, often very badly, in the album are terms defined, usually very well, in the *Rhetoric*.

At the end of Diogenes Laertius' *Plato*, we have ten pages of divisions,

erroneously said to have been collected by Aristotle out of the works of Plato. Many, though not all, of these divisions are again amateurish and even puerile attempts at the division of frequently unsophisticated and unimportant generic concepts. I take them to be specimens from a class album of divisions, i.e. a collection of, mostly, students' early essays in division assembled for tutorial criticism.

Diogenes Laertius credits Xenocrates with eight 'books' of Divisions; Aristotle with seventeen; Theophrastus with two; and Speusippus perhaps with one. Speusippus is given one 'book' of Definitions; Aristotle seven; Theophrastus three or perhaps five.

It looks to me, therefore, as if, whatever Plato promised or dreamed for Division and Definition, in mundane curricular fact they were taught to young, even very young, students in the Academy before they were qualified to study the Arts of Rhetoric and Dialectic—and a very sensible preliminary course this could have been. We can well imagine that the *Sophist*'s half-dozen Kind-ladders terminating in the notion of *sophist*, though philosophically quite unrewarding, were intended to serve as exemplary models for the propaedeutic course on which the eighteen-year-olders were embarked. As the ladders are apparently alternatives to or rivals of one another, these could stimulate some educative comparisons and criticisms.

Similarly with the *Politicus*. Here the Stranger's voice and manner are markedly, even irksomely, those of the schoolmaster. The political concepts to which he applies his division procedures are concepts familiar to any bright lad. Save for some discussion of the notion of the Mean, the dialogue imposes no philosophical puzzles upon its recipients. It was not written to interest or profit those more senior students who were equipped to cope with the philosophical core of the *Sophist* or with either part of the *Parmenides*. Dialectic is alluded to only twice (285D and 287A), and then only in the Stranger's explanation of the preparatory role of the intellectual exercises that he is giving. So Plato may have composed the *Politicus* for the special benefit of the philosophically innocent novices who were at that moment getting their freshman training in the ABC of thinking. Perhaps it was the curricular needs of this special class of recipients which made Plato forget to give to the dialogue even a vestige of dramatic life.

The *Sophist* consists, queerly, of a stretch of highly abstract and sophisticated philosophical reasoning sandwiched between some division

operations which presuppose no philosophical sophistication whatsoever. In the philosophical stretch, dialectic, here equated with philosophy, is described (at 253C–D), as the science which discovers how the 'Greatest Kinds' are 'joined' with and 'disjoined' from one another. Among a lot of other metaphors the term 'division' occurs once or twice. This makes it tempting to infer that Plato thought that the task of constructing Kind-ladders was not only a propaedeutic to the philosopher's or dialectician's task; it was a part of it, or the whole of it. But then we have to recognise that the Stranger's exploration of the mutual dependences and independences of the Greatest Kinds does not yield one Kind-ladder, however short. For the Greatest Kinds are not related to one another as genus to species, or as species to co-species. Aristotle seems to be saying this in *Metaphysics* III (998b). Even to render γένη by 'kinds', and *a fortiori* by 'classes', is to prejudice the interpretation of the Stranger's operations. *Existence*, *identity* and *otherness* are not Sorts or Sets of things, embracing sub-sorts or subsets of things. The Stranger produces here neither dichotomous nor trichotomous divisions, for he produces no divisions at all.

In the *Parmenides* (Part II), between which and this stretch of the *Sophist* there are probable echo-relations, scores of implications, real or apparent, are traced between propositions anchored in, *inter alia*, the Stranger's Greatest Kinds. But again no Kind-ladders are generated. At least Plato did not work as if he thought that his own dialectical operations were of a piece with his own exercises in division.

There is, however, one argument, besides the natural interpretation of *Phaedrus* (265–6), for the view that Plato did assimilate Division to Dialectic, namely that Aristotle does scold some unnamed person or persons for failing to see that a division is not, and is not the product of, demonstration. There need be nothing illogical in refusing to accept a recommended division (*Posterior Analytics* 91b, and cf. *De Partibus Animalium* 642b–4a). This point would assuredly not have been an obvious one in the days when Aristotle himself had not yet pre-envisaged the science of Formal Logic. So maybe Plato did fail to see that Dividing is not Reasoning and is therefore not Dialectic.

None the less, the actual propaedeutic place of division and definition in the curriculum of Plato's own Academy, together with Plato's own non-production of Kind-ladders in his *Parmenides* (Part II) and in the philosophical core of his *Sophist* itself, satisfy me that Plato knew quite well that to be good at division did not by itself amount to being good at dialectic,

and so that in the *Phaedrus* passage he means but omits to say explicitly that division is only a preparation for dialectic. If this is so, then Plato, after *Republic* VII, gives us only one statement of what kind of contribution dialectic makes to human knowledge, namely the statement in the *Sophist* (253) that dialectic reveals the mutual associations and dissociations of the Greatest Kinds. As these Kinds seem partly to coincide with what Aristotle calls the πρῶτα γένη (*Met.* B 998b, 999a), and with what he elsewhere calls the 'common' terms or notions, Plato's present account of the role of dialectic seems to have some close affinities with that of Aristotle (e.g. *Rhet.* I, II 20–22, *Met.* B 995b 21).

It is difficult to extract a hard-edged doctrine out of the metaphors in which Plato talks of those relations between the Greatest Kinds which it is the task of dialectic to disclose. But as in the *Parmenides* (Part II) old Parmenides is all the time drawing consequences, legitimately or illegitimately, from propositions that hinge on the formal or 'common' concepts, including those listed as 'Greatest Kinds' in the *Sophist*, it is possible that in the *Sophist* itself Plato is gropingly beginning to isolate for consideration such trans-departmental propositional connections as *implication*, *incompatibility*, *contradiction* and *compatibility*. If so, then here in the *Sophist* and with fuller awareness in the *Parmenides* (Part II), he is ascribing to the dialectician enquiries which Aristotle ascribes to the dialectician, namely what we can now call 'logical' enquiries. Plato is, perhaps, adumbrating the route on which in his *Topics* lectures Aristotle is already toddling, and in his *Analytics* will before long be marching.

I say that in his *Topics* Aristotle is, as yet, only toddling, for though his purpose is to construct an Art which shall enable eristic questioners and answerers to force and rebut elenchi, he is still very unclear about the difference between (1) an argument generating an absurd conclusion because the *inference is fallacious* and (2) an argument generating an absurd conclusion because the answerer has not noticed that at least one of the *questions* put to him was equivocal, or many questions in one, or unrestrictedly general, or metaphorical, etc. There is one and only one logical fallacy about which Aristotle is perfectly clear in the *De Sophisticis Elenchis*, namely the Fallacy of the Consequent. An answerer may erroneously think that having conceded that *if p then q*, and having also conceded *q*, he must concede *p*. But in the main, Aristotle tries to diagnose the treacherousness of arguments in terms only of internal trickinesses in their premisses. It is worth noticing that nowhere in the *Topics*, not even in the reputed

Handbook of Fallacies, the *De Sophisticis Elenchis*, does Aristotle mention such formal fallacies as Undistributed Middle. His *Art of Dialectic* is not yet a work of formal logic. The *Topics* could have been taught without the Academic equivalent of a blackboard. The *Prior Analytics* could not.

Aristotle makes it a defining property of a dialectical argument that the thesis which the answerer undertakes to uphold is an 'endoxon' and not a paradox. It should be a truism, or something attested by the experts, or something obvious to the man in the street. Now, certainly, it would be a sensible piece of practical advice to a participant who wants to win an eristic duel to tell him to defend only those theses of which he and the members of the audience feel quite sure. It is much easier to think of points supporting what one believes than to think of objections to it, or to think of points supporting what one disbelieves. But Aristotle is wrong in making this a defining property of the exercise. For one thing he himself allows, what old Parmenides insists on, that the would-be philosopher should practise constructing and rebutting arguments both *pro* and *contra* each thesis and its negative. But if a thesis is an endoxon, its negative will be a paradox, so the defender of this negative will be arguing for something which he does not believe, and yet will still be operating dialectically (see Aristotle, *Topics* 101a34; 163b1–15). I suspect that Aristotle overstresses the importance of the unparadoxicalness of theses for another reason. I think that his grasp of the notion of fallaciousness of reasoning is still so unsure that he is inclined to assume that a paradoxical conclusion must generally derive (validly) from something overtly or else covertly paradoxical in a premiss. The answerer must have conceded something inadvertently, so that the truism that he meant to uphold has been replaced by a paradox that he never meant to uphold.

I believe that the correct answer to the question 'What is the philosophical value of elenctic argumentation?' is much the same for both Plato and Aristotle. Both know in their bones that ἀπορίαι are the driving force of philosophical, as distinct from scientific, thinking; but neither is able to state to himself why this should be so, or what sort of knowledge or insight comes from the unravelling (λύσις) of an ἀπορία. Aristotle says, with his enviable pungency, 'the resolution of a perplexity is discovery' (ἡ γὰρ λύσις τῆς ἀπορίας εὕρεσις ἐστιν) (*Nic. Eth.* 1146b6; cf. *Met.* 995a24–b5); and in his practice he regularly first marshals ἀπορίαι and then moves to their λύσεις. But he never explains clearly why the person who has never been in an ἀπορία at all is to be pitied rather than envied. It

is, however, not for us to complain. We, too, know in our bones how philosophical problems differ in kind from scientific problems; but our statements of the differences continue to be inadequate. Wittgenstein's 'fly-bottle' is the ἀπορία of the Academy. But what has the fly missed that has never got into the bottle, and therefore never looked for or found the way out of it?

CONCLUSION

Our study of the eristic or dialectical exercise has shown us something of what is going on in the Academy during the last ten or twelve years of Plato's life and the first ten or twelve years of Aristotle's teaching life. Eristic contests have become a part of the curriculum even for fairly junior members of the Academy, and both Plato and Aristotle are keenly interested not only in its gymnastic utility but also in its philosophical productiveness, in our sense of 'philosophical'. Aristotle's pedagogic interest in the Art of constructing and rebutting elenchi leads him into the pure theory of valid versus fallacious argument, but only at a later stage. The idea of confutation-without-cheating precedes the idea of validity.

APPENDIX

By the time Aristotle had completed his *Topics* the eristic exercise had collected a fairly large technical and semi-technical vocabulary. Some of this vocabulary was doubtless deliberately coined by Aristotle, his colleagues and students. But a good deal of it had grown up before. We find a fairly copious vocabulary in Plato's dialogues, largely but not entirely coinciding with that of the *Topics*. I append, in no special order, the words and phrases that Plato seems to associate with elenctic cross-questioning. Nearly all of them are standard terms in Aristotle's *Topics*. ἀπορία, ἀπορεῖν, etc.; εὐπορεῖν; ἔλεγχος, ἐλέγχειν, etc.; θέσις (*Rep.* 335), τιθέναι, etc.; ὑποθέσις, etc.; λύειν, λύσις, etc.; ἐρωτᾶν, ἐρώτησις, ἐρώτημα, etc.; ἀποκρίνειν, ἀποκρίσις, etc.; ἀντιλέγειν, ἀντιλογική, etc.; ἐρίζειν, ἐριστική, etc.; ἀγῶν, ἀγωνιστική, etc.; διαλέγεσθαι, διαλεκτική, διαλέκτος, etc.; συλλογίζεσθαι; λόγον διεξίεναι, etc.; ἀμφισβητεῖν; συμβάινειν; ἀκολουθεῖν; ληρεῖν (= *Ar.* ἀδολεσχεῖν); ἀδικεῖν, ἀδικία, etc.; γυμνασία, etc.; πεῖραν λαμβάνειν, etc.; ἐξετάζειν; φιλονικία, etc.; ἐναντία λέγειν; ἐναντιώσις; ὁμολογεῖν, ὁμολόγημα, etc.; ἀπόδειξις; ὀνόματα

θηρεύειν; ἀνατιθέναι (revoke an earlier concession); παραδέχεσθαι τόν λόγον (cf. *Topics* 159b34); ἄτοπον; ἀπολόγημα.

Plato's phrases for the (so-called) Fallacy of Many Questions are δύο ἅμα με ἐρωτᾷς and οὐχ ἁπλοῦν τοῦτο ἐρωτᾷς (*Gorg.* 466c; 503a). Aristotle's regular phrase is τὸ τὰ πλέιω ἐρωτήματα ἕν ποιεῖν.

This so-called Fallacy of Many Questions is not a fallacy at all, since it is not an argument. It is a trick-*question*. The only person who can be guilty of this foul is a questioner. The provenance of the trick was the eristic exercise. So was the provenance of the foul, miscalled the 'Fallacy', of Begging the Question, of which also only the questioner can be guilty. He begs the question, only 'begs' is a hopelessly misleading translation, when he, in effect, asks the answerer to concede the direct negative of the thesis that it is the answerer's job to defend. Even if by skilful rewording the questioner does trick the answerer into admitting the negative of his thesis, still he has not argued him into an elenchus, and *a fortiori* he has not fallaciously argued him into an elenchus.

6

DIALECTIC IN THE ACADEMY

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(1) Isocrates, in his *Antidosis* of 354/3 (258–69), commenting on the curriculum of what is obviously the Academy, concedes a limited pedagogic value to the studies of astronomy, geometry and eristic. He repeats this concession a dozen years later in his *Panathenaicus* (26–9), with acidities at the expense of some unnamed teachers of these subjects; it has been conjectured that he has Aristotle particularly in mind. In his *Letter* to the young Alexander, of 342, he refers to teachers from Athens from whom the princeling is learning eristic. Here Isocrates can hardly not be alluding to Aristotle.

Anyhow the *Antidosis* proves that dialectic, or what Isocrates always calls 'eristic', had been a part of the Academy's curriculum for young men for at least a little while before 354/3.

No one, I fancy, doubts that Aristotle began to teach parts of the contents of our *Topics* in his quite early teaching years in the Academy. The *Topics* is an 'Art' or training manual in the questioner–answerer disputation-exercise, and both in his *Topics* and in his *Art of Rhetoric* Aristotle closely associates the study of rhetoric with the study of dialectic. In his *Art of Rhetoric* Aristotle frequently talks as if his rhetoric students are quite familiar with the terminology and the practice of dialectic, i.e. as if they are learning both 'arts' together. Both book III of the *Topics* and *Rhetoric* I

6–7 give instruction in the types of arguments to be employed in order to establish the goodnesses and the comparative goodnesses of various types of things; their instructions are pretty similar and in several points identical. The version in the *Topics* shows only slightly greater technical sophistication than the version in the *Rhetoric*.

So Aristotle may have begun to give instruction in elenctic disputation nearly as soon as he began to teach rhetoric, well before the middle 350s. This connection between the teaching of rhetoric and the teaching of dialectic may have been of long standing. Antisthenes seems to have taught both, and in the mistier past Protagoras seems to have done so too. Political and forensic success both require not only fluency and elegance of diction, but also readiness and cogency in argumentation and counter-argumentation.

Among the writings credited by Diogenes Laertius to Xenocrates there are the *Solutions of Logical Problems* in ten books, *Solutions* in two books, eight books of *Divisions*, twenty books of *Theses*, the *Study of Dialectic* in fourteen books and nine *Logisticon Biblia*. So Xenocrates must also at some stage have done a lot of teaching of dialectic. Perhaps he collaborated with Aristotle.

At the end of his *De Sophisticis Elenchis* Aristotle, in almost his sole statement about himself, says that where the authors of *Arts of Rhetoric* built on foundations laid by their predecessors, he, Aristotle, had had to start the theory and methodology of dialectic from absolute scratch. He does, of course, adduce concrete examples of dialectical arguments from Plato's dialogues and elsewhere. He also mentions, very scathingly, some earlier *Arts* of eristic disputation, which had done nothing but present, in memorisable form, particular arguments *pro* and *contra* particular theses, as if learning by heart particular arguments amounted to learning how to argue. The *Dissoi Logoi* is our solitary surviving specimen of such manuals of *pro* and *contra* argumentation. It really does just assemble particular arguments *pro* and *contra* particular theses, compressed and, once, numbered off for memorisation, without a serious trace of diagnosis, comparison or classification. Plato and Aristotle certainly know and draw on the *Dissoi Logoi*, so it is quite likely that this composition is one of the *Arts* of eristic of which Aristotle is complaining.

Even in his *Euthydemus*, a dramatised collection of sophistical elenchi, from which Aristotle draws several of his examples, Plato makes no positive contributions to the theory of cogent, as opposed to merely tricky, argumentation. Its author is interested in what we should classify as

logicians' teasers; but he is not yet a logician. The author of the *Topics* teaches generalities about the forms and ingredients of arguments and misarguments. He is beginning to answer general technical questions which even in the *Euthydemus* were not yet being asked.

(2) Was dialectic a part of the Academy's curriculum before Aristotle taught it? In particular had Aristotle himself, during his student years, been coached in at least the match-winning tactics of questioner–answerer disputation? Was the Socratic Method taught to the young men in the Academy during the 360s?

At first sight we naturally suppose that this must have been so. (*a*) Plato frequently identifies or very closely associates dialectic with philosophy, and we all have the congenial picture of the Academy as, above everything, a school in which Plato taught philosophy to the young men. (*b*) In his *Parmenides* Plato makes old Parmenides urge the youthful Socrates to train himself for philosophy by going through Zenonian exercises, and the second part of the dialogue is presented as an exemplar of these exercises. (*c*) All Plato's early dialogues up to the *Gorgias* or the first book of the *Republic* have their dramatic life in questioner–answerer duels; and the young Cleinias, Lysis, Menexenus, Polus, Alcibiades and Charmides are subjected to Socratic questioning, as if this is indisputably of benefit to them. (*d*) Whether or not the young men, including Plato, around the historical Socrates were in any formal sense his pupils, they seem, from the *Apology*, to have learned from his example to practise the Socratic Method. Surely Plato would have transmitted to the students in his own Academy what Socrates had transmitted to him. What else, indeed, had Plato to teach?

But though tempting, this is not the right answer. In Book VII of the *Republic* (537–9) Socrates sternly forbids anyone under the age of thirty years to participate in questioner–answerer disputation. Young men are demoralised by the fun of tearing and shaking their opponents to bits. Elenctic disputation is reserved for the selected thirty-year-olds.

Plato adhered to this ban. He did not any longer teach dialectic, or therefore teach philosophy to the young men, though it was with his full approval that Aristotle introduced the teaching of dialectic into the Academy's curriculum fairly early in the 350s. It *could* be that Plato did teach the scientific contents of the *Timaeus*. But his own darling subject, the Socratic Method, he did not teach, though, we may suspect, not at all for the reasons given in Book VII of the *Republic*.

In support of this idea that Plato did not teach, *inter alios*, the young Aristotle dialectic or philosophy, we have evidence besides that given by Book VII of the *Republic*. (*a*) First of all we have Aristotle's own statement at the end of the *De Sophisticis Elenchis* that he had himself to start from scratch the Art of dialectic. If Plato had, however pragmatically, taught the Socratic Method, he could not have done so without at least sometimes discussing, especially with the young Aristotle, some moderately general methodological questions. Although in his *Topics* Aristotle pretty often draws on or alludes to things in Plato's early, middle and late dialogues, he never once refers to any tutorial injunctions, diagnoses or even tactical tips from Plato. The *Topics* contains not a single identifiable echo of Plato's pedagogic voice. (*b*) Not even in Plato's late dialogues do we find more than two or three of the very numerous technical terms which Aristotle uses in his anatomy of dialectical arguments. The only ones that I can think of are '*poiotes*' in the *Theaetetus*; '*phasis*' and '*apophasis*' in the *Sophist*; and '*koina*' in the *Theaetetus*. (*c*) There is a passage in the *De Sophisticis Elenchis*, 182b22–7, in which Aristotle, possibly referring to Plato's *Parmenides*, mentions two rival views, according to one of which the *aporiai* in the arguments of Zeno and Parmenides about Unity and Existence are to be resolved by finding pluralities of senses in the terms 'one' and 'exists'. It is not even suggested that anyone asked Plato for his solution of the puzzles that, conjecturally, he had himself composed. We are reminded of passages in Aristotle's *Politics*, 1264a29, 1264b34, 1316a1, where Socrates (*sic*) is reproached for leaving undetermined certain important arrangements in his Ideal State. Neither Aristotle nor anyone else seems to have asked Plato which of the open alternatives he intended. This point has no weight if Aristotle's reference is not to Plato's *Parmenides*. (*d*) In the *Gorgias* and Book I of the *Republic* Plato reached the peak of his genius in the dramatic representation of questioner–answerer duelling; yet just then he abandons this whole type of dialogue. From the *Phaedo*, the bulk of the *Republic*, and all the later dialogues, save the highly formalised *Parmenides*, Part II, the Socratic Method has vanished, save for stray spasms, e.g. in the *Cratylus* and *Theaetetus*. The answerers are now mostly nodders and not defenders of theses. The elenchus has vanished. It seems reasonable to suppose that Socrates' veto on dialectic for the young men in Book VII of the *Republic* was connected somehow with Plato's abandonment of the dialectical dialogue. (*e*) Isocrates' *Busiris*, which scholars have surely grossly antedated, seems (in 15–23) to credit to Egypt policies recommended in Plato's *Republic*,

including the Academy's curriculum. Astronomy, arithmetic and geometry are the young men's studies. Eristic is not mentioned.

If Plato did not teach Aristotle dialectic, then he did not teach Aristotle philosophy, in anything like Plato's or our sense of the word. But if not, then the much canvassed question How, When and Why did Aristotle break away from being the loyal disciple of Plato that he must have begun by being? becomes an unreal question. Aristotle never was a philosophical pupil or *a fortiori* a philosophical disciple of Plato. He knew and learned much from the dialogues of Plato. He also knew some of the writings of Zeno, Heraclitus, Democritus and Empedocles. But he did not sit at the feet of any of these authors. It was partly because Aristotle had to work out for himself the theory and methodology of dialectic that he made himself into the first logician-philosopher. He never ceased to be anyone's echo, for he never had been anyone's echo. He stood to Plato as Wittgenstein to Frege, and not as Bosanquet to Bradley, or as Theophrastus to Aristotle. To trace the intellectual growth of Aristotle we must cease to locate its germ in something called 'Platonism', or even in something called 'anti-Platonism'.

(3) In *Republic* VII Socrates, though forbidding the under-thirties to participate in dialectic, 'the coping-stone of the Sciences', requires the over-thirties, or the best of them, to do so. Do the senior members of the Academy hold their own questioner–answerer disputation-matches? (*a*) *A priori* it seems likely that their discussions of philosophical issues would take this form. (*b*) In Aristotle's *Peri Ideon* and, for example, in his assemblage of the cruces about the nature and worth of Pleasure in Book X of the *Nicomachean Ethics*, he makes such constant use of the technical terminology of dialectic that it is natural to suppose that he is giving us digests of actual elenctic disputations between Speusippus, Xenocrates, Eudoxus, himself and others. (*c*) In the *Peri Ideon* the arguments supporting and the arguments controverting the thesis that Forms have a separate existence are too abstract and sophisticated to derive from the disputations of mere twenty-year-old novices.

(*d*) In the *Topics* (101b22) Aristotle says that the term '*idion*' or 'property', i.e. 'peculiarity', is the title universally employed. This may show that at least one of Aristotle's regular technical terms had been taken over by him from elsewhere. But the passage may not carry this weight. (*e*) Several times in the *De Sophisticis Elenchis* he reports some anonymous other people as proffering rival diagnoses of and remedies for specific sophistical elenchi. At 182b23 Aristotle mentions two parties, those who deny

and those who assert that the *aporiai* in the discourses of Zeno and Parmenides derive from the plurality of senses of 'one' and 'exists'. The technical instrument of *Many Senses* is being used by people other than Aristotle. (f) The Third Book of the *Metaphysics* is a catalogue of *aporiai* that need to be resolved. These *aporiai* are usually referred to quite impersonally; but in 995a26 and 1000a5 some of them are ascribed to contemporary persons other than Aristotle himself.

(g) In *Metaphysics* M 1079b21 the Mixture theory of the relation between Forms and particulars is credited to Eudoxus, who ἔλεγε διαπορῶν. Whether διαπορῶν means 'raising an *aporia*', or 'tackling an *aporia*' or 'going through a set of *aporiai*', the conjunction of the participle with ἔλεγε strongly suggests both that Eudoxus produced the theory in the course of elenctic disputation and that the theory was not one which Eudoxus necessarily agreed with.

The rules and codes of the elenctic disputation-match did not require that the defender of a thesis believed it to be true. His business was to produce the best possible case for it. Nor did the questioner have to believe the thesis to be false. His business was to produce the best possible case against it. In the *Topics* (163a–b) Aristotle recommends his students to be, on different occasions, attackers and defenders of the same thesis, and this not only for the sake of developing dexterities, but still more for the sake of developing the philosophically valuable capacity to survey the implications both of the thesis and of its contradictory. Two or three generations earlier Protagoras and Socrates had laboured under the reproach of teaching students to argue both for and against theses. The *Dissoi Logoi* does exactly this. The same interchange of disputation-roles seems to continue to be a standard feature of the elenctic exercise. So it is probable that in the Academy's discussions of, for example, the Theory of Forms, Aristotle, Speusippus, Xenocrates, Eudoxus, Heracleides and others all try their hands both as attackers and as defenders of the Theory. Aristotle knows well, since he has himself often had to marshal and develop, the numerous arguments against the Theory of Forms that we find in, for example, the fragments of the *Peri Ideon*. He also knows well, since he has himself had to marshal and develop, the numerous non-Platonic arguments for the Theory of Forms.

En passant, this might give us an explanation of the 'we' in Aristotle's *Metaphysics* different from that given by Jaeger. 'We' might mean not 'we Platonists' but 'we (whoever we are and whatever doctrines we hold)

when we are acting as answerers in defence of the thesis that Forms are separate entities'. It would still be arguable that Aristotle uses the word 'we' at the time when these disputations are currently in progress inside the Academy, and that he drops it when he leaves the Academy, or when he and his colleagues have exhausted the potentialities of the problem.

There is a further point to be noticed about the conduct of elenctic disputation. A given thesis is commonly debated again and again; and sometimes the same person acts as defender of it or else as attacker time after time. Written minutes or abstracts of the argument-sequences deployed are kept and consulted. Consequently the arguments for and against a given thesis undergo a progressive development and crystallisation. I, in attacking the thesis, say, that Virtue is teachable, redeploy question-chains that I and others have deployed before, as well as try progressively to fortify them against past or present rebuttals, misinterpretations and exceptions. Like chess-players' 'combinations', lines of argumentation are public property, and a tactical improvement made by myself becomes henceforth a part of anyone else's stock of arguments for or against the same thesis. We can see a partial analogy in the more or less standardised question-chains which are employed in the opening moves in the radio game of *Twenty Questions*. Aristotle gives some advice about the memorisation and the composition of minutes or abstracts of lines of argument in *Topics* 105b12 and 163b17 ff., and in the latter passage he speaks of the disputation-issues that crop up again and again. When we think, therefore, of the Academy's disputations about Pleasure, or about the Theory of Forms, we should not suppose that these are just single or occasional discussions. They are deliberately repeated over and over again, with the same or with different questioners and answerers; and the course of today's debate largely repeats, with condensations, that of yesterday's debate or last week's debate, save in so far as the participants reinforce, repair or clarify argument-sequences that were gone through yesterday and last week. To ask whether the finally crystallised refutation of the thesis *that pleasure is not a good* is the handiwork of Aristotle or of someone else is to ask an unanswerable question. It has passed between all the millstones. Dialectic is a co-operative and progressive polemic—a polemic not between persons, but between theses and counter-theses. Theses are not personal property, nor arguments.

(4) Aristotle frequently distinguishes between those notions which are proprietary to specific disciplines, like medicine or geometry, and those

which are ubiquitous or 'common' to all subject-matters alike. Among such 'common' or ubiquitous concepts are *existence, identity, similarity, unity, alteration, coming-to-be* and their opposites. The proper dialectician investigates these common or neutral concepts. (See *Rhet.* 1, 1; 1, 2, 1358a2–32; *Topics* 170a34–b11; 172a7–b4, cf. *Met.* 995b20–6; 998b14–27; 1004a9–5a18; also *Met.* Δ *passim*.)

In three of his late dialogues Plato seems also to isolate a set of neutral concepts, and in his *Theaetetus*, 185–6, he too calls them 'common'. He instances *existence, identity, difference, unity, plurality, likeness, unlikeness* and *odd* and *even*, and associates with these the notions of *beauty, ugliness, goodness* and *badness*. For his present purposes, at least, he pits their neutrality not, as Aristotle does, against disparate disciplines, but against the disparate qualities apprehended by the different sense-organs. In the *Sophist*, from 254c, Plato examines the concepts of *existence, non-existence*, '*motion*' and '*rest*', *identity* and *otherness*. He calls them the 'greatest kinds'; he does not here use the word 'common'. In 253b–4b he allots to the dialectician the task of exploring the connections between these summit-concepts. In his *Metaphysics*, 998b15–22, Aristotle speaks in a similar way of 'the first kinds', and of 'the highest of the kinds', instancing only *existence* and *unity*. In the *Parmenides*, 129, Socrates mentions together *unity, plurality, likeness, unlikeness*, '*rest*' and '*motion*'; and later on old Parmenides, describing the exercises required by the would-be philosopher, instances as concepts to be explored by the two-way Zenonian method *unity, plurality, likeness, unlikeness*, '*motion*', '*rest*', *becoming* and *ceasing to be, existence* and *non-existence*. No general epithet, like 'common' or 'greatest', is here applied to these concepts; nor are the words 'dialectic' or 'dialectician' employed. In the Second Part of the *Parmenides*, while all the dialectical operations are operations *upon* the concept of *unity*, the operations themselves are very largely operations *with* the concepts of *existence, non-existence, identity, otherness, likeness, unlikeness, coming to be, ceasing to be, unity, plurality, part, whole* and so on. What Aristotle says that the dialectician ought to concern himself with, namely the ubiquitous concepts, coincides with what Zeno's master is made to concern himself with. It seems, then, that, however strenuously Aristotle criticises Plato's Ontology of Forms, he and Plato are in perfect agreement about the differences between 'common' or ubiquitous concepts and all the other concepts. They are in perfect agreement too that it is these ubiquitous notions which constitute the proper or the basic subject-matter of dialectic.

The dialectical part of the *Parmenides* is prefaced by the advice of old

Parmenides to the youthful Socrates to train himself for philosophy in exercises of the Zenonian pattern; with the qualification that he should examine the implications not only of a given positive thesis, but also of its contradictory. After Zeno has explained that an exhibition of the exercise would be unsuited to *Hoi Polloi*, old Parmenides launches into his dialectical exploration, in lifeless questioner–answerer style, of the consequences following from the theses (*a*) that Unity exists, (*b*) that Unity does not exist.

For whose benefit did Plato compose this second part of the *Parmenides*? Explicitly for the benefit, not of *Hoi Polloi*, but of the young men who hoped to become philosophers, and therefore presumably for the young men in the Academy. Clearly the abstractness and subtlety of its argumentation would render it totally obscure and uninteresting to young men who had had no or little practice or coaching in dialectic. If Aristotle inaugurated the teaching of dialectic in the Academy, then the second part of the *Parmenides* was composed for the pedagogic benefit of Aristotle's pupils, and of his relatively advanced pupils. The young men to whom Aristotle is teaching some of the contents of our *Topics* are the young men for whom Plato composed the dialectical part of the *Parmenides*. That Parmenides' young interlocutor is a namesake of our Aristotle is no accident; and that Parmenides says of him that 'he is not the one to make trouble (for his questioner)' is surely a collegiate joke. For this to be true, Plato would have had to compose this part of the *Parmenides* at least some way on in the 350s. Part I of our *Parmenides* had surely been substantially composed several years earlier than Part II, and had not been planned to have for its completion anything like our Part II. Nor had our Part II been originally planned to be the completion of our Part I. For Part I is in *oratio obliqua*, while Part II, save for one opening 'he said', is in *oratio recta*. This suggestion that Part II of our *Parmenides* was composed fairly well on in the 350s clashes violently with the dating-scheme into which scholars commonly coerce the composition of the Platonic dialogues and the foundation of the Academy. So much the better, since, for reasons which cannot be given here, this scheme must as a whole be massively antedated.

(5) We are left with one major historical puzzle. If Plato so approves of Aristotle's *Topics*-classes that he composes for them his *Parmenides*, Part II, as an instructional exemplar of philosophically fertile dialectic, then why has he not himself taught dialectic in the Academy? All the more since not only were all his early dialogues dramatised elenctic disputations, but his

Euthydemus in particular was a brilliant assemblage of sophistical elenchi, intended to stimulate the young Cleiniases to enquire what was wrong with these insidious elenchi. Why does Book VII of the *Republic* forbid the young men to participate in exercises of the Socratic Method, when almost all the pre-*Phaedo* dialogues are spurs to them to do so? In the *Apology* Socrates admits that the young men of his circle learn from his example to practise the Socratic Method, and he denies that he corrupts or spoils them. Yet in the *Republic*, Book VII, which is dramatically earlier than the *Apology*, Socrates says that participation in the Socratic Method is the ruination of young men. Why the yawning gap between Plato's *Euthydemus* on the one side and Plato's *Parmenides*, Part II, and Aristotle's *Topics* on the other? Why is it left to the young Aristotle to teach dialectic to the young men in the Academy? Why, if Plato approves of this teaching in the 350s, had he vetoed it in the early days of his Academy?

In his *Memorabilia* I (31–8) Xenophon says that two members of the Thirty made it illegal for Socrates in particular to subject young men under thirty to Socratic questioning. Plato's *Apology* contains no such story; in the *Euthydemus*, of which the dramatic date is only two or three years after the fall of the Thirty, the two sophists interrogate the young Cleinias and Ctesippus, and are willing, for a fee, to give young men tuition in their Art, with nothing said of the recent or present existence of any politicians' veto; and Isocrates, in his *Helen*, scolds the teachers of eristic, but not as contravening any law against it. In the *Republic* the veto on dialectic for the young men is Socrates' own veto. Apparently Xenophon knows of an *ad hominem* veto on the teaching of dialectic to the young men, but invents a fifth-century provenance for it.

7

JOHN LOCKE ON THE HUMAN UNDERSTANDING

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My purpose in this address is not to discuss or even to mention a great number of the views which Locke puts forward in the *Essay*, but solely to try to state what in my view is the important contribution to philosophy which he made and for which he deserves to be ranked among the great philosophers. I shall, in consequence, squander no time in appraising him as an historical influence or as the founder or offspring of this or that philosophical school. For I shall, I think, be doing him a greater honour if I can point out how he threw new light where darkness was before.

The minds of thinking men in the late seventeenth century were woefully harassed by the numbers of disparate bodies of propositions which demanded their acceptance. Even within the field of theology—interest in the cruces of which was then more widespread among educated men than is even now interest in the cruces of the natural sciences—traditional revelation, personal illumination, authority and faith were all severally acclaimed as sure grounds for the truth of most important propositions about God and human destiny. And besides theology, the newly developed mathematical disciplines were hardly distinguished, even by the masters of them, from the physical and metaphysical speculations which they thought demonstrable by simple extension of the methods of

mathematics, with the result that general propositions based on experimental evidence, no less than the hypothetical constructions of dogmatic ontologies, pretended to the same sort of logical necessity as that which, whatever it is, holds between the successive steps of a mathematical deduction.

Worse still, the atomic hypothesis of the physicists had already been translated by Hobbes into a materialist metaphysic with paradoxical and alarming corollaries in his political, moral and epistemological theories. Nor did his first and chief philosophical opponents, the Cambridge Platonists, make any lower claims to logical impregnability for their idealistic than he had done for his materialist conclusions.

Small wonder then that Locke discovered that before 'coming any nearer a resolution of those doubts which perplexed us'[1] 'it was necessary to examine our own abilities and see what objects our understandings were or were not fitted to deal with'. His object was 'to enquire into the original, certainty and extent of human knowledge, together with the grounds and degrees of belief, opinion and assent',[2] and for this end it was necessary to give a general classification of the main sorts of subject-matters about which we think and formulate propositions, the main sorts of propositions that we make about them, the main sorts of evidence upon which our propositions can be based, and the main sorts of conditions of mind in which we accept these propositions. And if, as turns out to be the case, there are found differences of kind in all these respects between the propositions of mathematics, those of the inductive sciences, those of history, those of theology, those of common-sense experience, those of moral philosophy, and those of dogmatic metaphysics, there will be an end to a great part of the disputes which arise when the credentials of one method of discovery are purloined to bolster up the conclusions of another.

Two convictions underlie his method of enquiry. The first is, to parody the title of Toland's heterodox book, his supposition of 'The Human Understanding not Mysterious', by which I mean that he consistently refused to accept any account of the ways or workings of the human mind which relied on the miraculous, the magical or the transcendent. This shows itself both in his sustained criticism of the doctrine of Innate Ideas,

[1] Epistle to the Reader.
[2] Bk. I, chap. 1, §2.

which was in his own day the chief weapon of the Cambridge Platonists against the Hobbists, and also in his unsentimental exposure of the claims made in theology for traditional revelation and for the direct illumination appealed to by 'enthusiasts'. It shows itself too in the treatment he accords to the Scholastic doctrines of Substantial Forms, Essences and the like.

The second underlying conviction is that the philosophical enquiry into such subjects as the human understanding should not embody 'the physical consideration of the mind', i.e. the attempt to discover by experiment or hypothesis causal laws governing the occurrence of mental states and happenings. The analysis of the concepts of knowledge, probable judgement, belief, guesswork, faith, sensation, perception, discernment, comparison, abstraction and the rest, is not laboratory work—though what the nature of the process is he does not directly elucidate.

The pity is, as we shall see, that the one doctrine which above all others we tend to regard as Locke's central and official teaching, namely 'the new way of ideas', is partly and disastrously the product of just the sort of causal hypothesis which he abjures.

THE NEW WAY OF IDEAS

That human knowing and thinking are to be described as consisting in or, at any rate, containing 'ideas' is something which it never occurs to Locke to question. It was, after all, common ground to the Cartesians and the Cambridge Platonists, and it was natural, though most regrettable, that Locke should have deemed it his task merely to elaborate the theory and not to reconsider it. For, as I shall try to show, while the term 'idea' is used by Locke in a number of completely different senses, some of which embody no philosophical nuisance save brachylogy, there is one sense in which he uses the term, and one which is cardinal, for what are, in my view, the most damaging errors in the theories of knowledge of Locke and his successors, in which it must be categorically denied that there are such things as 'ideas' at all. And had this been the only sense in which Locke used the term, then his whole *Essay* would have been, what it is not, a laboured anatomy of utter nonentities.

Let us consider some of the main uses to which he puts this Pandora's box of a word.

(*a*) In his account of sense-perception Locke gives the usual treatment to the data of the five senses, and treats the sensible 'qualities', such as

softness, hardness, coldness, warmth, white, red, sweet, stinking and the rest as affections or states of the perceiving mind (on all fours with pains) caused by some physical impulse from the minute constituents of the external body upon the minute constituents of the appropriate organs of the percipient's body. He does not observe that the arguments which prove that these sensible qualities are relative to the percipient prove only that they are relative to the physical situation and condition of the percipient's body, and so he lightly assumes it for certain that they are dependent on the percipient in the special sense of being modifications of his *mental* condition. However, as pain, for example, or fear presumably are mental states, and can without too much peril be described therefore as being 'in the mind' as distinct from 'in physical objects', it makes sense (even if it is false) to say that colours, tastes, noises, smells and 'feels' are in the same way 'in the mind', namely as being special conditions in which a mind may be on an occasion of perception.

Therefore, when Locke calls sense-data or sensible qualities 'ideas', while his theory may be false, there is no special objection to his using the term 'idea' as a special term of art to denote states of mind of this sort, namely feelings or sensations.

(*b*) Sometimes, though relatively rarely, Locke uses the term 'ideas' to denote 'images' or pictures in the mind's eye. This is, of course, the normal use of the word by Berkeley and Hume. Of images it is at least plausible to say that they are somehow mental, though it is hard to describe the precise way in which they are in the mind. They are, however, at least not directly the effects of external impact and so are not homogeneous with sense-data as Locke describes these.

(*c*) Sometimes, by 'idea' he simply denotes an act of thinking about something. For example, in his chapter 'Of the Association of Ideas'[3] he refers to many cases, which all of us could multiply indefinitely, where we are set thinking of one topic by the thought of another, even though neither has any real relevance to the other. This sense remains in use in ordinary speech today. We say 'the idea of so-and-so has just occurred to me', meaning no more than that something or other has just caused or occasioned us to think of the thing in question. In this use the term 'idea' denotes just acts of attention or consideration, and these are certainly acts of mind, but they have nothing special to do with sensations or with

[3] Bk. II, chap. 33.

images, both of which we have already seen to be referred to by the term 'ideas'.

(*d*) Next, Locke explicitly uses the term 'ideas' as his paraphrase for the more academic 'notions', 'species', 'conceptions' and 'terms'; and he continually describes 'ideas' as what words are the signs of, or what words stand for or are the names of, or what, e.g., are expressed by the words 'whiteness, hardness, sweetness, thinking, motion, man, elephant, crazy, drunkenness'.

In this use he is clearly referring to what we technically call 'concepts'. Now a 'concept' is nothing more or less than an apprehended attribute, property, quality or character, and conception is the apprehension of an attribute, property, quality or character.

This use divides into two. (1) In one sense 'having an idea' is simply knowing or thinking something to be of a certain character. When I know or think that something is moving, or that something is an elephant, I can go on, if I like, for the purposes of such enquiries as logic, to consider in abstraction the character which I have been considering the object to have, namely being in motion, or being an elephant.

Now *usually* when Locke uses the term 'ideas' (except where his special representative theory of ideas is under consideration, which it pretty seldom is), he is simply referring to the mental acts of considering something to be of a certain character. And the acts of considering are certainly 'in the mind', in the sense of being acts performed by the mind. But the characters are not mental acts or states. No one in his wits could think that being an elephant is an occurrence in a person's mental life.

(2) And in the other sense not infrequently[4] when Locke speaks of 'ideas', he is referring not to the apprehending of a character but to the character or attribute itself. And this is clearly his meaning in the lengthy analyses that he offers of space, time, number, infinity, power, substance, activity, identity, personality. He is enquiring what it is to be in space, to be infinitely extensible, to be a substance, to be a person, etc., and not what it is to think of things as being one or other of these. And, as we shall see later, his famous definition of knowledge as the perception of the connection and agreement or disagreement and repugnancy of any of our ideas is translatable simply into the assertion that knowing consists in seeing that a given character implies or excludes (i.e. implies the absence

[4] Bk. II, chap. 8, §8; Bk. II, chap. 28, §1; Bk. IV, chap. 1, §6; Bk. IV, chap. 6, §5, &c.

of) another character. He is not saying that knowing consists in a species of introspection.

So far we have no special objection to any one of the five given uses that Locke gives to the term 'idea'. They are all quite different from one another, so to call them all by one title is ruinously ambiguous; and each by itself is complex enough to make the term 'idea' a dangerous condensation. But none of these five uses conceals any special hypotheses or presuppositions.

(*e*) But there remains the last and most notorious use of the term—and the one with which Locke's name is peculiarly closely associated. The term 'ideas' is used to denote certain supposed entities which exist or occur 'in the mind'. But they are 'in the mind' not, apparently, as states or operations of the mind, nor yet are they merely 'in the mind' in the way in which the battle of the Marne is 'in my mind' when I am thinking about it. For they are clearly supposed to be dependent on minds for their existence. Later exponents of the theory speak of them as 'contents', as if the mind was a container in some (non-spatial) sense analogous to physical objects which spatially contain other physical objects. But this metaphor—which Locke does not employ—sheds only a deeper darkness.

However, the theory supposes that in some sense minds do support these 'ideas', and further that these ideas are objects for them, i.e. that minds attend to ideas and think about them. It also supposes that minds cannot immediately attend to or think about any other things save 'ideas'. So whenever we think of or are awake to anything, it is to these supposed mind-dependent entities to which we are attending and never directly to any real existence outside of (which I suppose means independent of) our minds. An idea is 'whatsoever is the object of the understanding when a man thinks . . . or whatever it is which the mind can be employed about in thinking . . .'.[5]

There is supposed to be some relation between some of our ideas and real existences, for ideas of sensation are said to be produced in us by bodies; and 'ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves'.[6] Ideas of secondary qualities are unlike but are the effects of powers in bodies.

Moreover, ideas are distinguished into 'real' and 'fantastical', of which

[5] Bk. I, chap. 1, §8.
[6] Bk. II, chap. 8, §15.

the former are 'such as have a foundation in nature; such as have a conformity with the real being and existence of things or with their archetypes'. 'Our complex ideas of substances, being made all of them in reference to things existing without us and intended to be representations of substances as they really are, are no farther real than as they are such combinations of simple ideas as are really united, and co-exist in things without us.'[7] Again he speaks of 'simple ideas which are ἔκτυπα, or "copies" ', and 'the complex ideas of substances are *ectypes* or "copies", too; but not perfect ones, not adequate'.[8] And in his chapter 'Of True and False Ideas'[9] he says: 'Thus the two ideas of a man and a centaur, supposed to be the ideas of real substances, are the one true and the other false; the one having a conformity to what has really existed, the other not.' He states the first and most obvious difficulty in the theory in his chapter 'Of the Reality of Human Knowledge':

> It is evident the mind knows not things immediately but only by the intervention of the ideas it has of them. Our knowledge therefore is real only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet I think there be two sorts of ideas that we may be assured agree with things.[10]

This relation between ideas and real things he describes elsewhere thus:[11] 'For since the things the mind contemplates are none of them, besides itself, present to the understanding, it is necessary that something else, as a sign or representation of the thing it considers, should be present to it; and these are ideas.'

The theory is then this: that the world contains a number of real things or substances. Some of these are minds. A mind cannot directly know other substances, but in lieu of this it has dependent on itself certain objects called 'ideas'. These are not, apparently, states in which the mind is (with the exception of sense-data which are) nor are they acts of thinking

[7] Bk. II, chap. 30, §5.
[8] Bk. II, chap. 31, §§12, 13.
[9] Bk. II, chap. 32, §5.
[10] Bk. IV, chap. 4, §3.
[11] Bk. IV, chap. 21, §4.

performed by the mind, but something else, the status of which is not (and could not be) specified. These, or some of them, are present proxies or 'ghosts' of absent substances or of absent qualities, meaning by 'present' 'capable of direct inspection' and by 'absent' 'incapable of direct inspection'. By means of these vicarious objects we can and without them we cannot think some thoughts and even get some knowledge about other substances. Finally, sense-data, images, acts of attention, the apprehensions of characters, and characters themselves (all of which were severally called 'ideas' in completely different senses of this word) are now classified as species of 'ideas' in this special sense of mind-dependent objects, functioning, sometimes, as *locum tenentes* for independent realities.

But it needs now no prolonged argument to show (1) that there is no evidence for the existence of these supposed mental proxies for independent realities, (2) that the assumption of them throws no light on the problem (if it is one) how we can think about or know things, but only multiplies gratuitously the number of things to be thought about or known; and (3) that it embodies a theory, unplausible in itself, which, if true, would make knowledge or even probable opinion about independent realities quite impossible.

(1) If they existed or occurred, there should be empirical evidence of their existence or occurrence. But in fact introspection does not reveal them, and (I put it dogmatically) there is no causal inference to them. The argument on which Locke seems chiefly to rely, namely that the words which express our thoughts have meanings, proves nothing. For the word 'square', e.g., means a shape which physical objects do or do not have and not a mental something.

(2) The assumption of 'ideas' does not explain how we think about or have knowledge of objects; for they are themselves described as objects about which we think and of which and the relations between which we have knowledge. If there is no difficulty in seeing how we can think about or have knowledge of ideas, then there is none in seeing how we can do so with respect to other objects like the moon or Julius Caesar. There is a prejudice that minds can only attend to what is part of or attached to their own being, but it seems to be due either to the futile superstition that minds are a species of container or to the popular mistake in logic of supposing that relations are not genuine in the way in which qualities and states are genuine characters of things.

(3) Even if there did exist such things as 'ideas' were supposed to be, it

is almost impossible so to describe them as to make sense of the assertion that some of them 'resemble' or 'represent' realities, and quite impossible to explain how we could ever know or even opine with probability that they do so, unless it is granted that we can have the same direct knowledge of realities as of the ideas of them. And if this is granted, there is no need to assume the existence of the mental 'ectypes'. Not a few philosophers have tried to evade representationism by denying the existence of the supposed archetypes of the ideas and thus populating the world with nothing but minds and their ideas. And others have tried to accord to ideas truth of a non-representationist type by such dodges as internal coherence, systematic connectedness and the like. But the problem which they try thus to solve is a sham one, since the alleged 'contents' for the objective validity of which they proffer such devious defences have no existence and so no properties or relations. They belong where 'phlogiston' belongs and where 'substantial forms' belong, namely to the folk-lore of philosophy.

The theory did, however, secure for Locke one important positive advantage in enabling him to draw what we shall see is a really crucial distinction between certain generically different types of propositions and consequently between certain generically different types of enquiry. For, as I have said, it was a part of Locke's purpose in writing the *Essay* to expose the nerves of the differences between the pure mathematical sciences, the natural or experimental sciences, moral and political philosophy, and theology. And for this purpose it was quite necessary not only to distinguish the sorts of evidence upon which are based the conclusions of these several types of enquiry, but much more to discover and find some way of formulating the differences between the sorts of subject-matters about which these propositions are. And this his theory of ideas partially enables him to do. For he is now in a position to say that the subjects of the propositions in arithmetic and geometry, for instance, are merely the species of ideas which he calls simple modes and are therefore not real existences or substances. Numbers, ratios, square roots, pentagons, circumferences and tangents are in fact being negatively described as not things in nature when Locke describes them in the seemingly positive term of 'ideas'. It is not, of course, a finally adequate analysis of mathematical propositions to say that they are only about 'ideas', for not only are they plainly not psychological propositions, but 'ideas' themselves are only psychological fictions. But as a provisional step, it does mark an

important step away from the insidious indulgence of the Schoolmen of hypostasising the terms of propositions of all sorts and thus, by multiplying entities without limit, of obscuring the distinction between propositions about matters of fact and propositions of quite other sorts.

> All the discourses of the mathematicians about the squaring of a circle, conic sections, or any other part of mathematics, concern not the existence of any of those figures; but their demonstrations, which depend on their ideas, are the same whether there be any square or circle, existing in the world, or no. In the same manner, the truth and certainty of moral discourses abstracts from the lives of men, and the existence of those virtues in the world whereof they treat . . .[12]

We could, it may be hoped, find some other and less question-begging way of stating how it is that such propositions as those of mathematics and philosophy are about something, and yet are not about things in nature, than by saying that they are about ideas in our minds. But if we take Locke's account sympathetically, as a purely negative one, elucidating merely what such abstract propositions are *not* about, we shall find that a great part of Locke's treatment of the nature and relations of the several sorts of human enquiry only requires a little purely verbal translation to be seen as a successful, even revolutionary re-charting of the fields of human knowledge and opinion.

Similarly the consideration of those propositions containing terms which seem to denote fictitious objects, such as propositions about centaurs, unicorns and sea-serpents, has tempted logicians to suppose that, as these nouns are not meaningless, reality must in some unexplained fashion contain centaurs, sea-serpents and unicorns. And to this extent it is a healthy if incomplete manipulation by Locke of Occam's razor when he denies the real existence of such supposed objects by his device of describing them as 'fantastical ideas' or as 'ideas' simply. Positively, of course, it is false that a sea-serpent is a mental state or operation; for sea-serpents have (or rather would have) scales and swim (or rather would swim) in the sea—attributes which could not possibly characterise 'ideas'. But negatively taken it is half-way to the true account of such propositions seemingly about fictitious objects, to say that they are about

[12] Bk. IV, chap. 4, §8.

ideas. For it is true that they are *not* about things in nature. But this line of interpretation must be expanded later.

THE ORIGIN OF IDEAS

The historians of philosophy, abetted, it must be confessed, by those who set examination papers in philosophy to students, love to allocate philosophers to 'schools of thought', and Locke has suffered more than most from this facile pigeon-holing. He is generally written off not merely as an Empiricist but as the founder of the School of English Empiricism.

It is not quite clear what an Empiricist is, but it is quite clear that most of the doctrines which an Empiricist (as ordinarily defined) should hold are strenuously denied by Locke. That the evidence of particular perceptions can never be a foundation for true knowledge, that true knowledge is both completely general and completely certain and is of the type of pure mathematics, that inductive generalisations from collected observations can never yield better than probable generalisations giving us opinion but not knowledge, are doctrines which Locke's whole *Essay* is intended to establish. He even goes so far with the rationalist metaphysicians as to hold that the existence of God is demonstrable, and he is at one with the Cambridge Platonists in arguing that the principles of morality are demonstrable by the same methods and with the same certainty as any of the propositions of geometry.

But he shows the cloven hoof, it is alleged, in his assertion that 'the materials of all our knowledge, are suggested and furnished to the mind only by those two ways . . . viz. sensation and reflection'[13] (i.e. introspection); and 'Our observation, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking'.[14] He makes, of course, a sharp distinction between the materials of thinking and the constructions, combinations, comparisons and abstractions which we make out of those materials. But it is ordinarily supposed that Locke's delimitation of the sources of the 'materials of thinking' should have forced him to the conclusion that there can be nothing more in thinking or knowing than the bare serial

[13] Bk. II, chap. 2, §2.
[14] Bk. II, chap. 1, §2.

reception of these materials. But we must not vault to the conclusions which Locke did draw or should have drawn from this premiss until we have discovered what this premiss really is. To clear possible interpretations out of the way: by 'materials of thinking' and 'source of our ideas' (1) he *might* have meant (but in fact did not) the data, i.e. evidence, on which all the conclusions of our inferences are founded. Such a view would imply that all inference is inductive and, eventually, that no conclusions of inferences are certain. But it is clear that in fact he means something much more innocuous than that. (2) Or again he *might* have meant that images never occur unless we have previously experienced directly in sensation or introspection data of which they are reproductions; i.e. that images can only echo sense-data. This was certainly Hume's way of taking Locke's principle that the materials of our knowledge originate in sensation or reflection. But I find no evidence that Locke meant this. All that he seems to mean is this: (*a*) that we can never think of anything as being of a given character, unless we have met with an instance of this character, where the character is a simple unanalysable one. Where it is a composite character, we must at least have met with instances of the simple characters, of which the composite character is compounded; and (*b*) that the only ways in which human beings can be directly acquainted with instances of characters are by sense-perception and introspection. The former proposition is plausible if not true; and is anyhow only an Aristotelian orthodoxy. The latter is also plausible and (if the former proposition be accepted) can only be rejected by any one who can show that there is at least one other species of perception. (It could be debated whether introspection really is a species of perception, but I cannot discuss this question here.) And if the former proposition (*a*) is rejected, there seems no alternative but to accept some sort of doctrine of innate ideas.

Of course Locke was handicapped by his physiological theory of sense-perception from giving any plausible account of how in particular perceptions we can come to know that *relations* of any sort hold between the objects which we perceive; for he had to hold that perceiving is barely acquaintanceship with our internal affections, with which such relational characters as 'intenser than', 'between', 'after', etc., could plainly not be classified. Nor, for the same reason, could he explain how particular perceptions introduce us to such principles of form as the substance-attribute form, the term-relation form and, perhaps, the principle of cause

and effect. But these serious defects have no tendency to prove either that Locke was wrong in maintaining that we can only learn that there is such a thing as being of a given character from first meeting in perception with instances of it (where the character is a simple one), or that his acceptance of this view logically committed him to what I take to be the full empiricist position that all reasoning is induction.

Perhaps I should just allude here to another rather hollow objection which is popularly levelled against Locke's account of the source of our ideas. He says that in sensation the mind is passive, though active in the operations of combination, comparison, abstraction, etc., which it performs upon the data of sensation. And it is held to be highly wicked for a philosopher to say that the mind is passive. I do not myself think that the disjunction activity–passivity is of great importance—or even of much luminousness. However, Locke does seem to be confusing two quite different senses in which the mind is said to be passive in sensation which are worth distinguishing.

That I cannot choose but see what I see or hear what I hear or, for example, that it is not by an act of my will that onions smell as they do is true and obvious. And sometimes[15] by the distinction between passive and active Locke seems to be doing no more than referring to the distinction between those states of affairs which I bring about voluntarily and those which come about involuntarily. So 'passive' just means 'willy-nilly'. But generally Locke presupposes in his use of the term 'passive' his special causal theory of perception, by which the smell that I smell or the sound which I hear is a state of me caused by the impact upon me of something outside my skin. 'Passive' then means 'inflicted'. This causal theory may be false, but its refutation cannot be grounded upon a supposed *a priori* inappropriateness of the term 'passive' to states of mind. Before we can accept the supposed alternative doctrine that the mind is *active* in sense-perception, we should need to know whether 'active' means 'creating' or 'making a new combination of' or 'causing a change in', or whether it merely means 'tending to engender fatigue'.

I need not say much about Locke's treatment of the formation of derivative ideas, that is to say, of the operation of mind by which we come to apprehend compound characters, and to consider attributes in abstraction from the particular objects which we have found to exemplify them.

[15] Cf. Bk. II, chap. 30, §3.

For in the main his treatment of these topics is an unsatisfactory mixture of an attempt to give a logical classification of the types of general terms which occur in the propositions of the mathematical and natural sciences with a half-hearted attempt to button these subjects up into the straitjacket of his representationist theory of ideas. However, in his classification of space as a 'mode' as opposed to a substance, and especially in his not unimportant analyses of the concepts of extension, distance and place or relative position, and in his defence, against the Cartesians, of the distinction between space and body he does not merely introduce us into the very heart of the controversy between the Cartesians and the Newtonians, but is half-way to supplying a satisfactory account of the differences between pure geometry and physics as well as of the way in which geometry enters into physics. He seems even to be inclined to the relational theory of space, but the authority of Newton seems to have been a stronger influence in the contrary direction. And in his treatment of infinity in which he distinguishes the infinity of space, time and number from the notion of *an* infinite space, of *an* infinite time or of *an* infinite number, it may be that there do lie the seeds of the final solution of the perplexities upon these matters which have so long occupied men's minds.

We shall have to return to consider Locke's treatment of what sort of truth it is which is contained in geometrical and arithmetical propositions; but the rest of the topics which Locke deals with in this book must be passed over as not being indispensable for the understanding of Locke's main objects and main achievements.

KNOWLEDGE

The propositions in which we formulate what we know or think or guess are divided, in quite the traditional way, into particular and general or universal. Particular propositions profess to state particular matters of fact and to be about particular existences. General propositions fall first into two main types, those which are certain, being either self-evident or demonstrable by self-evident steps from self-evident premisses, and those which are not certain but at best probable. The latter rest on the foundation of particular observations of particular existences. The former are either trifling, i.e. identical or analytic, or else instructive or 'synthetic' (to use Kant's term).

Now 'scientifical knowledge' must, he takes it, be of general truths; and to be 'certain' its truths must be either self-evident or rigorously demonstrable. Hence it follows that its propositions cannot be about particular existences nor founded on the evidence of propositions which are so. The propositions, therefore, of 'scientifical knowledge'[16] can only be about the relations of 'abstract ideas' in the way of agreement or disagreement. As he has in mind here such propositions as that the internal angles of a triangle are equal to two right angles, it is clear that the mysterious-sounding phrase 'the agreement and disagreement of our ideas' refers simply to the propositions which assert that the having one general character implies (or implies the absence of) another character.

Locke was not enough of a logician to analyse very closely these notions of agreement and disagreement, i.e. implication and exclusion. But one point he makes quite clear. By the universal and certain propositions of science he does not mean either such propositions as 'what is green is green' *or* such propositions as 'what is green is coloured', *or* such propositions as 'a triangle is a plane figure bounded by three straight lines'. For a definition he regards as a proposition about the employment of a word; and what we call analytic propositions are for him only fragments of definitions. And these are, for him, 'trifling' propositions in the sense that nothing is learned, no new knowledge is got, when we see one of them to be true. It follows that the 'agreement' of which he speaks is not the 'is' of identity, nor yet is it the entailment of a generic character by a specific one, but something different. He thinks, namely, that there are some general propositions which we can know to be true which assert that the having one attribute implies the having of another, when these are not only different attributes but further when neither is entailed in the other as generic in specific.

And he thinks that the propositions of arithmetic and geometry as well as those of moral philosophy are of this sort; and indeed that 'scientifical knowledge' consists in the knowing of such implications.

So when he gives his notorious statement 'knowledge then seems to me nothing but the perception of the connexion and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists. Where this perception is, there is knowledge; and where it is not, there, though we may fancy, guess, or believe, yet we always come short of

[16] Bk. IV, chap. 3, §26.

knowledge,'[17] he is attempting not to give a definition of knowing as opposed, say, to guessing and believing, but to describe what it is that we know when we know something scientifically—namely, that it is never anything else but what we would call an implication (or exclusion) of one attribute by another. 'Ideas' here is just a synonym for 'quality' or 'attribute', and connotes, unless I am wrong, nothing at all of his 'proxy' theory of ideas. He does, however, reintroduce this in a ruinous fashion,[18] where he says, 'Every man's reasoning and knowledge is only about the ideas existing in his own mind, which are truly, every one of them, particular existences; and our knowledge and reasoning about other things is only as they correspond with those our particular ideas.'

Locke is now in a position to show that the truth of the abstract general propositions of pure mathematics as well as of moral philosophy (which he is surely wrong in thinking homogeneous with mathematics) does not in the least depend upon whether there exist any objects having the properties the implications between which those propositions state. He is within an inch of saying that these propositions which express 'scientifical knowledge' are hypothetical. *They do not directly describe real existences*. They say what properties *would* follow, if something had certain other properties, and not that anything has them.

Now this seemingly unexciting discovery is of the greatest importance. For it proves that geometry does not (as the Cartesians thought) directly describe the world; and it proves that anyhow many philosophical statements have no ontological bearing—they do not describe transcendent entities, but merely say what *would* follow about any ordinary object if it was of such and such a character.

This is where Locke is an anti-Rationalist—not that he disputes our power to reach new certain and universal truths by pure reasoning (on the contrary it is in this process that, for him, science proper consists), but that he maintains, in effect, that all these truths are general and hypothetical and do not therefore give any description of what exists. Even the existence of God, demonstrable with mathematical certainty in Locke's opinion, must have for one of its premisses the existence of the person making the demonstration, and *his* existence is perceived and not proved.

[17] Bk. IV, chap. 1, §2.
[18] Bk. IV, chap. 17, §8.

Knowledge of the highest type consists, then, for Locke in knowledge of what have since been called synthetic *a priori* truths, but these do not constitute either an ontology or natural science. But he makes no attempt to show wherein consist these rather mysterious relations of agreement and disagreement (or implication and exclusion) nor to prove that mathematical propositions are really synthetic.

KNOWLEDGE OF EXISTENCE

Besides the knowledge formulable in general or hypothetical propositions, in which field alone formal deduction or demonstration is possible, there is the field of matters-of-fact within which some little knowledge of an inferior sort and much probable opinion is possible. This divides into knowledge (*a*) of particular existences and of particular co-existences of qualities in particular substances on the one hand, and on the other (*b*) the judgement (it does not amount to knowledge) based on the evidence of particular instances that certain properties always accompany certain others.

(*a*) Locke offers no analysis of existential propositions, and so never even considers whether knowing that I, for example, exist is really a case of perceiving a relation between two qualities. He argues that this I can know in the full sense of the verb, namely that I exist. It needs no proof. 'We have an intuitive knowledge of our own existence and an internal infallible perception that we are.'[19] Whether this involves knowing who or what I am (ignorance or doubt about which would leave small significance to the existential proposition 'I exist'), Locke leaves it to Hume to discuss.

Next, we can prove the existence of God from our own existence, since 'what had a beginning must be produced by something else'. And lastly, though we can neither have intuitive nor demonstrative knowledge that anything else exists, yet we can have 'an assurance that deserves the name of knowledge'.[20] For, while quite ignorant *how* our data of sense are caused to arise in our minds, *that* they are caused by agencies outside us is so highly probable that we have the right to feel certain that an object exists at the time we are experiencing a sensation. But of course we can have no

[19] Bk. IV, chap. 9, §3.
[20] Bk. IV, chap. 6, §3.

such assurance of the past or continued existence of external objects, or indeed of any moment of their existence except at the instant when the sensation is occurring. It will be seen thus that all our knowledge or assurance of the existence of other things, both God and bodies, presupposes our knowing that 'what had a beginning must be produced by something else'. Perhaps it was an interest in this special question of our knowledge of other existences that caused Hume to fix his criticism on the one (alleged) synthetic *a priori* proposition that every event must have a cause.

What exists is particular or, better put, the subject-terms of existential propositions are not general or abstract terms but singular and concrete ones. It follows, therefore, that there can be no question of our knowing synthetic *a priori* truths which are also existential.

No collocation of propositions of the form '*x*-ness implies *y*-ness' or 'whatever is *x* is *y*' can lead to a conclusion of the form 'Cicero exists' or 'Westminster Abbey has such and such mass'. Pure reason cannot inform us of a single particular matter of fact. So all the knowledge or assurance we can have about what exists or occurs in nature must either be or be based on the evidence of particular observations. If this is Empiricism then Locke is an Empiricist and, I would add, Empiricism is the truth.

THE NATURAL SCIENCES

But Boyle and Sydenham and 'such masters as the great Huygenius and the incomparable Mr Newton' do not merely list particular observations. The discoveries of the natural sciences are or are intended to be laws, i.e. general propositions holding good not only of all observed but also of all unobserved, all possible as well as all actual, instances of the type of phenomenon under examination. How do these differ from the general propositions of geometry and arithmetic?

Locke takes up this question by considering first of all how we come to classify things in nature into sorts. For the general propositions of the natural scientist will all be of the form that every object of such and such a sort has such and such properties. A living creature is classified as a lion or a body as a piece of gold because it is found to possess a certain set of qualities and is similar to many other objects which also have just the same or almost the same set of qualities.

But, unlike our procedure with abstractions which we can *define* to have

such and such properties and no others, in respect of natural kinds we cannot arbitrarily coin our definitions of the properties essential to the kinds that nature provides. Even if, as Locke seems to think, things in nature are really members of real kinds, in such a way that in their inward constitution their properties are necessarily connected, yet we have no way of perceiving the necessity of the co-existence of the qualities which we observe to co-exist. When we come to distinguish lions from bears and tigers, we do not yet know why tawny fur goes with such and such a shape of head in the way in which we do know why in a right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the other two sides.

We find several objects having in common a large set of qualities (though we can usually give no precise catalogue of these common characteristics), and so come to treat and name all the objects which have anyhow a large fraction of this set of qualities as members of the same sort. Moreover, we *suppose* that there is some principle, although we do not know it, necessitating that whatever has certain of these characteristics shall also have the rest.

> Our faculties carry us no farther towards the knowledge and distinction of substances than a collection of those sensible ideas which we observe in them; which, however made with the greatest diligence and exactness we are capable of, yet is more remote from the true internal constitution from which those qualities flow than, as I said, a countryman's idea is from the inward contrivance of that famous clock at Strasbourg, whereof he only sees the outward figure and motions.[21]

So the definitions which we give of the natural kinds which we establish do no more than list the properties which we constantly find to be concomitant. Thus our definitions are only of 'nominal essences', that is, of the bunches of properties which we have chosen to unify under one name. But how many such properties ought to be treated as necessarily concomitant we cannot know. 'We can never know what are the precise numbers of properties depending on the real essence of gold; any one of which failing, the real essence of gold, and consequently gold, would not be there, unless we knew the real essence of gold itself, and by that

[21] Bk. III, chap. 6, §9.

determined the species.'[22] Often Locke speaks as if the difficulty is merely a consequence of his causal theory of sense-perception or, what comes to the same thing, of his theory that the secondary qualities of things are in the mind and not in things, namely that as all we can know of things is the sensations which they cause to occur in us, therefore the real internal constitution of things necessarily eludes our apprehension.

But in Book IV especially he puts his finger on the real nerve of the difficulty, which is, of course, the nerve of the whole problem of induction. The concomitance of what we take to be the 'sortal' properties of lions, say, or gold is generically different both from the relation of specific to generic quality ('entailment') and from the relations of agreement or disagreement (implication or exclusion) which we can know to hold between certain of our abstract ideas. So it is not merely that we do not yet see how to demonstrate by rigorous deduction that whatever has the other properties of gold must be soluble in *aqua regia*, but we can already see that there is no such logical implication. It is not an analytical proposition; it is not a self-evident synthetic one; and it is not one that can be demonstrated in a chain of propositions each self-evidently consequent from its predecessor.

> Thus though we see the yellow colour, and upon trial find the weight, malleableness, fusibility, and fixedness that are united in a piece of gold; yet because no one of these ideas has any evident dependence or necessary connexion with the other, we cannot certainly know that where any four of these are the fifth will be there also, how highly probable soever it may be; because the highest probability amounts not to certainty; without which there can be no true knowledge. For this coexistence can be no farther known than it is perceived; and it cannot be perceived but either in particular subjects by the observation of our senses, or in general by the necessary connexion of the ideas themselves.[23]

This gives Locke the generic difference which he requires between the pure deductive or *a priori* sciences and the experimental sciences. The general propositions of the physical and other inductive sciences rest on

[22] Bk. III, chap. 6, §19.
[23] Bk. IV, chap. 3, §14.

the evidence of regularly observed concomitances of properties; and these concomitances are not self-evident or necessary. So the conclusions of these sciences never can reach the certainty of mathematics, and in Locke's rigorous use of the term science, they cannot constitute scientific knowledge. They cannot rise higher than probability. 'We are not capable of a philosophical knowledge of the bodies that are about us, and make a part of us, concerning their secondary qualities, powers and operations, we can have no universal certainty.'[24]

THEOLOGY

It is likely that in Locke's mind and in the minds of his contemporaries, no more important or urgent question was discussed in the whole *Essay* than the question of the nature and certainty of the propositions of theology. Whether historical tradition can enable us to *know* that such and such things were revealed to certain of our forefathers, whether immediate revelation or inspiration yields a certainty of the same sort as our certainty of mathematical axioms, whether religious truths are above reason or according to reason or whether, although contrary to reason, they still demand unquestioning assent, these were questions of deep importance for Locke and for his age.

It seems not unlikely that it was from an enquiry into problems such as these that the *Essay* took its beginning. But, for us, Locke's treatment of these problems has by itself removed them from their pride of place in the forefront of philosophical interest. For we have no doubt now that historical testimony can yield nothing higher than probabilities; that whatever may be the authority of immediate inspiration, if and when it occurs, the claim that it has really occurred and not merely seemed to occur can never fully certify itself. Belief is belief and not knowledge; and no matter how transcendent its object or how elevated its effects may be, it can rise no higher than whole-hearted assurance. And we are sometimes whole-heartedly assured of what is not true. So the doctrines of theology rest on the fallible testimony of historians or the fallible testimony of the human heart, and may achieve indeed a degree of probability more than high enough for the confident and wise conduct of life; but they cannot emulate the demonstrability of mathematics nor even the broad statistical

[24] Bk. IV, chap. 3, §29.

foundations of experimental science. From which follows the corollary, to which we are now well acclimatised, that it is in principle erroneous to seek to base or corroborate the premisses of mathematics, philosophy or the natural sciences upon the conclusions of theology or the tenets of religious faith. These have their place in life, but they enjoy no precedence in rational enquiry.

What, then, was Locke's achievement? If I am not mistaken, it was something much greater than is usually allowed him. He was not merely the plain-spoken mouthpiece of the age or the readable epitome of its development; nor was it his task merely to anglicise and popularise the philosophical and scientific concepts and theories of his day. His title does not rest upon his rather frail claim to be the founder of psychology, nor yet upon his two-edged claim to be the founder of modern theories of knowledge. And to my mind there is no unkinder or unfairer testimonial to his philosophical writings than to say, what is often said, that in them the common-sense views of ordinary man find their best expression. Nor yet, in my view, is it a part of Locke's greatness as a philosopher that he expounded and popularised the theory (which he did not invent) of representative ideas. For I hold that the theory is not only an error, but the wrong sort of error, being in the main fruitful of nothing of positive value to the theory of knowledge.

Instead I claim for Locke that he did achieve a part of his ambition 'to be an under-labourer, in clearing ground a little, and removing some of the rubbish that lies in the way to knowledge' in that he taught the whole educated world the lesson (which might with profit be conned over in some quarters in our own day) that there are differences in kind, and roughly what these differences are, between mathematics, philosophy, natural science, theology, inspiration, history and common-sense acquaintanceship with the world around us. In a word, his achievement is that he gave us not a theory of knowledge but a theory of the sciences. So that for which we should render him thanks is no exciting speculation or visionary promise of another world, no disclosure of startling secrets of earth or heaven or of human nature, but something else which, though it does not glitter, still is gold, namely a permanent emancipation from a besetting confusion. He taught us to distinguish the types of our enquiries, and thus made us begin to understand the questions that we ask.

8

JOHN LOCKE

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If we are asked to give a list of the ten most influential philosophers of all time, we are likely to have the name 'John Locke' in our list, even, perhaps, fairly high in the list. It is not much of an exaggeration to say that one cannot pick up a sermon, a novel, pamphlet or a treatise and be in any doubt, after reading a few lines, whether it was written before or after the publication of Locke's *Essay concerning Human Understanding*, which was in 1690. The intellectual atmosphere since Locke has had quite a different smell from what it had before Locke. If we could fly back in a time-rocket to England in 1700, we could already breathe its air, and we could already converse with our new acquaintances there without feeling lost. In the England of, say, 1600, we should gasp like fishes out of water. But if we are then asked what Locke's great contribution was, we find it very difficult to answer.

A good many years ago, I happened to be sitting with Earl Russell in the restaurant-car of a train to North Wales. Somehow our conversation turned to John Locke and I put to Russell this very question, perhaps with some hyperbole: 'Why is it that, although nearly every youthful student of philosophy both can and does in about his second essay refute Locke's entire Theory of Knowledge, yet Locke made a bigger difference to the whole intellectual climate of mankind than anyone had done since

Aristotle?' Russell agreed that the facts were so, and suggested, on the spur of the moment, an answer which dissatisfied me. He said, 'Locke was the spokesman of Common Sense.' Almost without thinking I retorted impatiently, 'I think Locke invented Common Sense.' To which Russell rejoined 'By God, Ryle, I believe you are right. No one ever had Common Sense before John Locke—and no one but Englishmen have ever had it since.'

Now there was something true both in my unpremeditated retort and in Russell's unpremeditated rejoinder. But it is not at all easy to nail down this truth. The major thing I want to do in this talk of mine today is to try to nail it down.

Let me first of all, though, run through and dismiss three other more or less standard answers to that original question of mine, namely, 'What was Locke's great contribution?'

(1) The first of the four books into which Locke's *Essay* is divided is occupied almost entirely with the refutation of a theory, known as the 'Theory of Innate Ideas', the theory, namely, that we are born not only with arms, legs, eyes and ears, but also with a fund of truths and concepts. It hails originally from Plato's dialogues, the *Meno* and the *Phaedo*. Some philosophers, whose reading of Locke seems to have terminated at the end of this first book, speak as if what Locke achieved was just the demolition of this quaint but erroneous old theory. But this cannot be the right answer. A number of mostly rather small fry had indeed, in Locke's own day, given, with modifications, a brief revival to Plato's theory, often for theological ends; and the philosopher Descartes, who was not at all small fry, had given it a rather perfunctory and non-committal endorsement. But the Theory of Innate Ideas was not, in the seventeenth century, a dominant or even a very influential doctrine. It was not a doctrinal Goliath whose menace to mankind urgently needed to be dispelled by a stone from John Locke's sling. Moreover, we possess Locke's first draft of what was many years later to be his *Essay*, and in this draft the Theory of Innate Ideas goes almost, though not quite, unmentioned. He had begun to write his *Essay* without yet having even seriously attended to the Theory of Innate Ideas. It was only a secondary or tertiary target. He attacked it for interim tactical, not for ultimate strategic, ends. I think myself that he filled up too many pages on his demolition of the Theory.

(2) A quite different kind of answer to my original question is this. Locke, in his explorations into the workings of the human mind, and

particularly into its workings when trying to acquire knowledge, was inaugurating the science of psychology. Yet Locke never claims to be doing anything of the sort. So far from aspiring, as Hume did aspire, to be a second Newton, namely the Newton of the mental world, he speaks as if his task was rather to remove certain intellectual obstructions to the progress of such natural sciences as Newtonian mechanics, chemistry, astronomy and medicine. Moreover, if it were true that Locke's chief legacy was his contribution to psychology, we should have to concede that this contribution was of very little value. Next to nothing of Locke's terminology or of his theory of thought and perception survives in modern psychology. In fact psychology had to disembarrass itself of Lockeanisms before it could win its spurs as a science. A student who knew his *Essay concerning Human Understanding* and claimed to be well grounded in psychology would receive very short shrift from the Department of Psychology of his university.

(3) The third and the most favoured answer to my original question, and the last that I shall consider, is this. Locke was the champion of Empiricism against Rationalism. Philosophers, it is supposed, have to join one party or the other, and Locke was, if not the founder, at least the organiser and leader of the Empiricist Party. Yet Locke never calls himself an Empiricist, nor does he call Descartes, say, a Rationalist. Locke learned a lot from Descartes, and when he criticises Descartes's doctrines, it is only sometimes, though it is sometimes, for their abstract speculativeness that he takes them to task. Locke himself knew a good deal of medicine; he was a close friend of the chemist, Boyle, and he was an early Fellow of the Royal Society, which was dedicated to the advancement of knowledge by observation and experiment. He knew, by personal participation, the unseaworthiness of scientific theories which get no ballast from the laboratory, the operating theatre or the observatory.

Descartes, a mathematical genius, was indeed in his physics and his physiology much more of a pure theorist and much less of an experimentalist than Galileo, Harvey or Boyle. But even he never pretended that the science of human and animal anatomy, say, or astronomy, could be done, like geometry, in the armchair. Indeed he made some creditable though not very systematic observations of his own on the carcasses of animals in butchers' shops. Some of his *a priori* arguments for the existence of God are repeated, without uneasiness, by Locke himself. Indeed Locke's whole account of indubitable knowledge diverges only slightly from that

of Descartes. If Descartes was a Rationalist, then in this matter Locke was a Rationalist too.

The historical truth is that the supposed two-party system of Rationalists versus Empiricists just did not exist. But even if it had existed, the principle that our knowledge of nature must be rooted in observation and experiment had been the overt maxim of the Royal Society for a generation or more before the publication of Locke's *Essay*. If this maxim is 'Empiricism' then Empiricism had long been the familiar and uncontroverted principle of the Royal Society. Locke would not have invented it or felt any special call to champion it. Champion it against whom? The principle was in no jeopardy; and the defence of it, if it had needed defence, would have required no special originality.

I now turn to my positive task of specifying what Locke's contribution was.

We should, to start with, consider the seemingly trivial question—for whom was Locke writing? His own prefatory Epistle to the Reader makes it quite clear that he was writing for the general public, or rather for the general literate public, that is, for all who habitually read sermons, plays, histories, novels, books of travel or essays. He was not writing for a handful of experts in theology, scholarship or science; he was not, for example, writing exclusively for the Fellows of the Royal Society, the Professors of Oxford or the divines of the Church of England. Least of all was he writing for professional philosophers—no professional philosophers existed in the age of Locke. The whole first edition of his *Essay* was in fact sold out in less than two years.

To say that the *Essay* was written for the general public is not to say that it was a work of popularisation or vulgarisation. But it is to say that Locke thought that its problems and his solutions of them were germane to the intellectual interests of everyone, not just to the professional interests of the learned. But what intellectual interests are common to everyone? Surely some people get heated by political issues who are lukewarm about theological issues; some people are eager to hear about new discoveries in astronomy or medicine, while others care nothing about these but love to study archaeology or to read travel journals, essays or biographies. By what hook could Locke have hoped to capture the attention, as he did capture the attention, of literate folk in general? Even more, by what lessons could Locke have hoped to improve the thinking, as he did improve the thinking, of literate folk in general?

Notoriously, Locke in his *Essay* dissects the thoughts of which the human mind is capable into their constituent ideas; and he traces these constituent ideas to their sources in sense-perception and introspection. He describes the compoundings of these elementary ideas into complex ideas, and the distillation from them of abstract ideas, the coupling of them into propositions and so forth. But what were the bearings of this quasi-mechanics of our intellectual operations upon any, and *a fortiori* upon all, of the variegated intellectual interests of literate people in general? If you were a passionate supporter and I was a passionate opponent of the Arian Heresy, or of the Divine Right of Kings, as at that time, we might well have been, how possibly could we find in Locke's *Essay concerning the Human Understanding* a common illumination or a sharable lesson? Well, unless we were too bigoted or fanatical to be teachable at all, we could, I suggest, have found such a lesson, and Locke's actual readers found it too.

Violent controversy was a salient mark of Locke's age. In matters of religion above all, though followed closely by matters of politics, people who held opinions at all held them rabidly. The idea that opposing sects or opposing factions should or even could ever agree to differ, the idea, that is, of Toleration was as yet, save in Holland, hardly thought of or, if thought of, then generally deemed to be itself intolerable. Roman Catholics and Calvinists were at one on the duty of Intolerance, though they applied it very differently. If your opinions differ from mine, then to the scaffold or to exile or to Hell you should go. Conflicts between your and my opinions could be settled only by the elimination of you whose opinions must be wrong and pernicious. Locke himself lived for some years in Holland as a political refugee, and his Oxford college, Christ Church, was forced to deprive him of his Studentship because the King suspected Locke's politics. In the twentieth century no one tried to deprive me of my Studentship at Christ Church, or was even perturbed about any of my views.

It is against this background of controversy without toleration that we need to read Locke's *Essay*. Men in general needed to learn, what the handful of Locke's scientific friends in England and theological friends in Holland had quite recently learned, to realise not just that their own opinions and surmises might be mistaken, but still more that their opinions deserved only that *degree of adherence* that was warranted by the ratio of the amount of their evidence to their scope. For example, historical and theological opinions resting on testimony were less or more secure as that

testimony derived from few or many witnesses, uneducated or educated witnesses, biased or impartial witnesses, remote or recent witnesses, concordant or discordant witnesses. Analogously, the strength of our scientific opinions that rest on observation and experiment should be proportioned to the amplitude and the precision of those observations. In the fields of geometry and arithmetic, what is neither axiomatic nor proved by axioms is, as yet, mere hypothesis or else error. Here anything like a mere opinion, and *a fortiori* a stubborn opinion, is entirely unreasonable. 'Mathematical bigot' is almost a contradiction in terms.

Moreover, disputants often fail to consider the nature of the propositions that they espouse. Some propositions, though unquestionable, are only verbal or 'trifling' propositions, such as the proposition that a bachelor is an unmarried man. But their dull unquestionability is then covertly bestowed upon propositions of sorts which are not verbal and are far from trifling, like the proposition that for human beings there is a life after death. A person who rightly avers that he could not be wrong about the former proposition may easily go on to aver that he could not be wrong about the latter proposition.

Sometimes Locke seems to us unduly to narrow the field of what can be known for certain in order to widen the field of the propositions that can, at best, be reasonably opined, i.e. be of sufficiently high probability for us safely to act on them; and perhaps the intellectual modesty which he recommends does come a bit too close to intellectual defeatism. There are, according to him, very few sorts of truths that we can conceivably acquire real knowledge of. But I suggest that his prime concern was just with the areas where not concord on certainties but discord between certitudes prevails. It was for these cockpit areas, which on any showing, were and still are large enough, that he was prescribing. His prescription, which has been a blessedly trite one since 1690, is that men should learn to ask themselves what are the solidities and what are the frailties of the reasons they have for their opinions, no matter on what subject. They should learn to harness their opinions between the shafts of evidence and clarity. If this is what it is to have some degree of Common Sense, namely to have learned when it is silly and when it is reasonable to feel quite or fairly sure of things; when certitudes are unreasonable and when they are reasonable; then Locke's *Essay* does not only teach us what Common Sense is; it teaches us Common Sense. It teaches us how to be sensible or reasonable in our adoption, retention and rejection of opinions. It is, I suggest, chiefly for

contrast that Locke concerns himself with Euclidean certainties. His business is with the territories in which, though Euclidean certainties are unattainable, die-hard certitudes are all too prevalent.

A cautionary word is needed here. Our hackneyed phrase 'Common Sense' is not Locke's phrase. Moreover, when we use the phrase nowadays, we think chiefly of sensibleness in common, i.e. everyday matters, like not discarding winter clothing on a sunny morning in February. But for our purposes we should construe the word 'common' in a different way, namely to mean potentially common to or shared by all men alike, in respect of all their opinions alike, whether these opinions are theological or scientific or commercial or political or moral or aesthetic and so on. Locke is teaching us what it is to be sensible, and what it is to be silly in anyone's adherence to views of any sort about no matter what. It is no accident that Locke wrote, besides his *Essay*, one thing on the *Reasonableness of Christianity* and another on *Toleration*, i.e. the Toleration of religious differences. Locke's *Essay* is, in intention and in effect, much less a theory of knowledge than it is a theory of opinion. He is not, as Descartes had been, primarily pointing out the straight and very narrow path to certainties. He is teaching us how we can in some matters, and why we cannot in other matters, make reasonably sure.

But now for a bit of trouble. If this is the central moral of his *Essay*, how could Locke expect, and how could he have been correct in expecting that his quasi-chemical account of the ultimate elements of our thoughts would persuade people of this moral? How could people be taught to become critical of their own previous opinionatednesses by being told of the sources of our simple ideas in sensation and introspection, of the compoundings of these simple ideas, of their fixation by the attachment of them to words, of the different types of the true and false propositions into which they are combined, and so forth? Can ordinary or even highly sophisticated people be converted from bigots into fairly judicious and cautious thinkers by examining, so to speak, the mechanics of their own internal intellectual operations? We do not see better for knowing about our retinas. We do not swim better for knowing about our sinews, tendons, muscles and arteries. Why should we think less sillily for knowing what mental atoms our thoughts are composed of and how these mental atoms cohere into mental molecules? I think that there is an answer to these questions, though I am not positive that I have got it. But I shall try.

Even though we aim to be as factual or scientific as possible when we start to think about our actions, thoughts, perceptions, memories, resolutions and the rest, we still know, so to speak, in our bones that our theories about them, because couched in factual idioms echoing those of chemistry, mechanics, hydraulics or physiology, have inevitably omitted something; and omitted something that is cardinal to their being actions, thoughts, perceptions, memories or resolutions at all. For such theories, couched in such idioms, are necessarily silent about the *purposive* nature of our doings, thinkings, perceivings, etc. It is essential to them that they merit good, medium or bad marks. In our actions, unlike our mere reactions, either there is success or there is failure, and either dexterity or clumsiness. Some actions are obligatory; others are wrong; some are prudent; others are imprudent. Even walking, unlike breathing, is something that the infant has to learn, by trial and error, to do, first on flat and firm floors, and later, perhaps, on loose stones or icy pavements. He learns, but of course sometimes forgets that in special situations it is necessary to walk *carefully*. Similarly with perception. However well equipped he is with sharp eyes or good ears, the child has to learn to estimate, and not to misestimate, distances, speeds, directions and sizes, and to recognise at a glance, and not to misrecognise even slightly different kinds of objects and happenings. There is room for adeptness, precipitancy, imprecision and systematicness in our perceivings. It is not for optical reasons that the lynx-eyed Red Indian cannot detect misprints or see that a chess-player's queen is in danger. If he has not learned to read or to play chess his lynx eyes cannot tell him these things. Now the same thing is true of thought. What a person thinks on a certain matter is true or else it is false; it is accurate or else inaccurate; it is definite or else it is vague; it is clear or it is muddled; it is well or else ill founded; it is expert or else it is amateurish and so on. Some practice and often some tuition is a *sine qua non* of our being able to think out any problems at all, however simple, within certain fields. It is not from lack of quick-wittedness that my Red Indian cannot work out or even be defeated by a chess problem, but because he has not learned the game. Thinking, like fencing and skating, is a consortium of competences and skills. Like them, it has tasks which it may accomplish or may fail to do so. It has room in it, therefore, for high and low degrees of these competences and skills, i.e. of low and high degrees of stupidity and silliness. In our thinking we exercise good, moderate or bad craftsmanship. Thought is not something that just happens to us and in us, like

digestion. It is something that we do, and do well or badly, carefully or carelessly, expertly or amateurishly.

As I said, we know these and kindred platitudes in our bones. So when we read Locke's chemical-sounding theory of thought and perception and try to apply his theory to our own thinkings and perceivings, we automatically re-instate between the lines of the *Essay* this element that he has so far omitted, this cardinal element of purposiveness or craftsmanship. These lines say only that our simple ideas, the prime elements of our thoughts, originate in sense-perception and introspection. But we forthwith construe this theory of origins into a maxim of intellectual craftsmanship, namely the maxim of the Royal Society that theories about what exists and happens in Nature are relatively good theories only in so far as they are relatively well vouched for by relatively copious, systematic, careful and precise observations and experiments. Nor, I suggest, are we advancing beyond Locke himself in reading this and other maxims of intellectual workmanship between the lines of his *Essay*. I think that Locke himself thought and meant his readers to think that his chemical-sounding analyses of thought and knowledge carried with them these maxims about how to think well rather than badly. He talks of the origins and the agglomeratings of ideas, but only in order to illuminate the notions of judiciousness and injudiciousness.

It may also be the case, though now I am not suggesting that Locke had the point in mind, that the factual or scientific sound and 'feel' of his anatomy of cognition helped his readers to draw the intended moral. In this way. Suppose you hold some opinion passionately and are then advised to examine its credentials dispassionately and to examine the objections to it dispassionately, you, being human, will resent, passionately resent, the advice as partisan advice. It will feel like a traitor's advice to sell your fortress to its besiegers. But if someone, John Locke say, advises you to trace to their origins the complex ideas that are the materials of your opinion, to test for their precision and unambiguousness the words in which your ideas are fixed, then the advice does not feel to be partisan advice. It now feels like neutral advice from the laboratory. You may take this advice without suspecting treachery. So now you can allow yourself to practise some self-criticism—and from now on your opinion is no longer a passionate opinion. But, as I said, I am not suggesting that Locke thought of his anatomy of cogitation as a device for lulling suspicions. I am only suggesting that his *Essay* succeeded partly because its

anatomical tone of voice did in fact have this temperature-lowering effect.

Examiners award to the candidates their alpha, beta and gamma marks for, among other qualities, the qualities of their thinking. We can all learn, in some measure, to be our own habitual examiners, though without any formalised marking-code. Locke, I think, meant to teach us to become our own examiners. His *Essay* was meant to be an *Ars Cogitandi*, or even, if you prefer, an Ethics of Thinking. Certainly he couched the principles of intellectual self-marking in idioms reminiscent of a fairly primitive atomic and molecular theory—and a theory which, as I said at the beginning, can be refuted by any youthful student of philosophy. But this does not matter very much, if, as I am urging, for Locke himself and his readers the lessons conveyed in these pretty factitious laboratory idioms were not laboratory lessons. They were lessons in the craftsmanship, in the economics and even in the ethics of the formation, retention and rejection of opinions. They were lessons in reasonableness. If Common Sense is reasonableness in opining, then Locke taught and was the first to teach Common Sense.

I can imagine that some of you may grumble: 'Then did Locke's great contribution just amount to his long-winded statement of the obvious truth that the tenacity with which people hold their opinions is not always, but ought always, to be proportioned to the quantity and quality of the reasons that can be adduced for them?' To this grumble I reply, 'Yes, yes, yes!—but who made this obvious if it was not John Locke?' Every philosopher of genius has made obvious to mankind things that, in his youth, had not been more than, if as much as, quaint speculations. Every philosopher of genius can be ridiculed for having once painfully excogitated and laboriously argued positions which we absorbed effortlessly with our mother's milk. This is their contribution. They, with sweat and worry, designed and laid the pavements on which we easily stroll. Our difficulty is that of re-discovering what on earth it was that prevented them from strolling on these good, old pavements. The idea that there was a time, namely their time, when these pavements were missing is an idea to which, precisely thanks to them, we are not accustomed. To his pupils their teacher, if he is any good, is always the sedulous transmitter of the obvious. Its obviousness is his gift to them. How could they discern behind the ease of their reception of it, the pains that had gone to his giving of it? Standing on his shoulders, they cannot conceive why his feet had not from the start been where theirs are now.

I must not be construed as saying that Locke's *Essay* has made all of us, in respect of all our opinions, cautious, unobstinate, unbiased or open to correction. There are bigots, fanatics and cranks in our midst in 1965; there are bigotries, fanaticisms and crankinesses under our own dear skins, still in 1965. But to all or nearly all of us the words 'bigot', 'fanatic' and 'crank' are now terms of condemnation or contempt. We know what it is like for people, including ourselves, to be or else to keep clear of being die-hards in opinion; and we know how, at least in most matters of opinion, to require for our opinions their due meed of backing in testimony, clues, experiments or statistics; and where there is room for differences of opinion, we do not habitually or naturally demand the extreme penalties for other peoples' dissents.

Oliver Cromwell in 1650, with characteristic forcibleness, had said to the General Assembly of the Church of Scotland, 'I beseech you, in the bowels of Christ, think it possible you may be mistaken'. This lesson—except alas! in matters of race and nationality—has been fairly widely learned. But Locke's lesson was harder and a profounder lesson than was Cromwell's. For Locke required of us not just that we remember, from time to time, the quite general lesson that we are fallible, but that we remember all of the time to subject our particular opinings to the disciplines appropriate to them. All of our opinions could be and ought to be *considered* opinions. None of us can claim with a good conscience that we always succeed in this labour of intellectual self-control. But the very fact that we have bad consciences about our lapses shows by itself how deep Locke's lesson has sunk into us. Of course, that our opinions should always be *true* cannot be secured. But that they should always be well weighed and tested can in principle be achieved. John Locke taught us to wish to achieve this and to be sorry when we fail. Certainly we do often fail, but certainly too we are sorry when we fall below our standards. It was Locke who gave us these standards.

9

HUME

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David Hume is apt to be regarded by English-speaking thinkers as a philosopher of genius; Continental thinkers tend to take him as a mere gadfly. This difference of estimation may be symptomatic of wider and deeper divergences of outlook. I shall not assess these, but shall content myself with trying to describe a transformation of the climate of ideas for which Hume deserves most of the credit. I shall also briefly suggest two causes for the tepidity with which Continental thinkers, other than Kant, tend to speak of him.

First let me put on one side three features of Hume's thought which, though salient enough to monopolise the attention of most historians of ideas, are not in my opinion cardinal.

(1) Hume thought of himself as the inaugurator of the natural science of the human mind. He was to be the Newton of the moral sciences, that is to say, of the sciences, or studies, which we know as psychology, sociology, political science, history, economics, ethics and literary and artistic criticism. The experimental methods by which Newton had disclosed what could be disclosed of physical nature would be applied by Hume to disclose what could be disclosed of human nature. What the *Principia* did for the one realm would be matched for the other realm by *A Treatise of Human Nature: being an Attempt to introduce the experimental Method of Reasoning into Moral Subjects*.

In fact Hume's would-be mechanics of mental operations had even less foundation in experiment and observation than had Hartley's. A present-day student of psychology would learn much from reading Hume, but he would learn no psychology. Whether, for the structure of his projected experimental science, Hume borrows concepts from mechanics or concepts from biology, whether he thinks in hydraulic or in physiological models, he not only establishes no laws, he hardly even isolates his phenomena. His particles of mental life, namely his impressions, ideas and passions, are the products of theory, not authentic data for theory. His organising principles of association, custom and vivacity are sham counterparts to attraction, inertia and active force.

Hume's Newtonian enterprise was an ambitious failure. His psychological theory certainly helped his philosophical achievement, but not by containing new scientific discoveries, or even fertile scientific mistakes. The examples set by the other sciences gave him a new horizon; his belief in the scientific nature of his own ideas gave him extra boldness.

(2) Hume preened himself on being a ruthless though not immoderate Sceptic. Like Sextus Empiricus, Montaigne, Bayle and Voltaire he loved to puncture convictions and to discomfit dignitaries. He was sincerely irreligious, but he also wanted to shock. Such *Schadenfreude* doubtless quickens a man's perception of vulnerable targets, but in itself it gives no more, though no less, of a title to intellectual eminence than does the desire to reassure. Both can be motives to good, both to bad thinking. But the quality of the thinking has to be judged by its results, not by its motives.

(3) Hume may certainly be classified as an Empiricist. More clearly than Locke and more uncompromisingly than Leibniz, he separated truths of fact from truths of reason, and argued that only the latter can be known *a priori*. Knowledge of what exists or happens cannot derive from knowledge of the logical connections between concepts. Only observation and experiment can yield the answers to questions, particular or general, about the actual contents of the world. The existence of God and the uniformity of nature are no exceptions. Pretended *a priori* demonstrations of either are demonstrable fallacies.

Some commentators base their esteem for Hume upon his guillotine-edged Empiricism. But I find something over-dramatic in the picture of Hume decapitating the Rationalists. Rationalism was not, in Hume's day, an organised or self-conscious school of thought. No one, I think, styled himself a 'Rationalist' in the way in which in the medieval university men

styled themselves 'Realists' and 'Nominalists', or in the way in which in the nineteenth and twentieth centuries men have styled themselves 'Idealists', 'Pragmatists', 'Neo-Kantians' and 'Existentialists'. Except for Kant, the great philosophers of the seventeenth and eighteenth centuries were not university teachers. They taught no scholars; they headed no schools. As Rationalism was not a creed, so Empiricism was not a crusade. Certainly there was rationalism working powerfully in Descartes, Malebranche, Spinoza and Leibniz; in the Cambridge Platonists, and the Deists; in Hobbes, Clarke and even Locke. But their rationalisms were tendencies exhibited rather than principles promulgated, unquestions rather than doctrines. Even so, they were mixed up with plenty of theoretical and practical respect for experimental methods of enquiry. The reputations of Galileo, Harvey, Boyle, Huyghens and Newton were not in any jeopardy; the scientific procedures espoused by the Royal Society were not in dire need of an advocate.

Endemic to the reasoning of philosophers, as distinct from scientists, there was indeed much confusing of factual with conceptual questions. But this discrimination of philosophising from scientific theorising was yet to be made by Kant. Hume was not knowingly legislating against mutual trespasses between empirical science and philosophy. He did not even know, as we know, which he himself was really doing. Moreover, even if there had existed a philosophical school of Rationalists for Hume to refute, his refutation of it could have been an unimportant victory in a merely local and ephemeral debate. For a counter-'ism' to matter, more is required than that its demolition of its adversary should be complete. Rationalism, if it had existed, might have been a silly school doctrine; in which case Empiricism, if it had existed, would have been only a momentarily interesting purge. We could then have forgotten Hume as we have forgotten both Herbert Spencer and the victorious critics of Herbert Spencer. But Hume refuses to be forgotten.

If Hume was not at all the Newton of the moral sciences, not merely the Sextus Empiricus of the British Isles, and only by retrospective dramatisation the executioner of Continental Rationalism, where did his genius lie? To this question there can be no single-stranded reply. A philosopher's genius lies not in his giving one new answer to one old question, but in his transforming all the questions. He gives mankind a different air to breathe. But the differences that he makes are as hard to describe as the

differences made by growing up. The adolescent cannot realise what these changes will be like; the adult cannot recollect what they had been like.

I pick a single strand out of the total reply, hoping to accomplish by illustration what I could not accomplish by catalogue.

Hume lifted the notion of Reason off its pedestal and out of its shrine. He asked just what human beings can do, and also just what they cannot do, in virtue merely of their capacity for abstract reasoning. How much and in what concrete ways do men in their daily lives differ from animals, adults from infants, scientists from yokels, honest men from rogues? What kinds of truths are, but also what kinds of truths are not, accessible to a Euclid? Obvious questions to ask, assuredly; obvious, that is, since Hume first asked them. But to ask them then was to step out of a cleric's into a naturalist's work-room; out of the atmosphere of colleges into that of the Royal Society. The venerable hierarchical concept-system, recently shattered from the physical world, was now to be shattered also from the world of rational animals. Questions of relative efficacy displaced questions of relative dignity; causal questions displaced questions of precedence. The notion of rank was, at long last, dismissed even out of epistemology and ethics. Reason had lost its crown—or its mitre—and become just one among the many cause-factors in human living. It had become one corner of the field to be covered by the natural science of man.

What, then, can men do by abstract reasoning, and what can they *not* do? They can establish logically necessary truths, that is, they can deduce and demonstrate. The products of Reason, in its strict sense, are the propositions of mathematics. Certainly there are many other qualities for which human beings, at their best, are popularly but loosely described as 'rational'. Men make inferences from observed to unobserved matters of fact; they construct general scientific theories; they control their irritation or their alarm; they accept, teach and apply moral rules. But Hume will argue, *seriatim*, that not one of these mental operations is an operation of abstract or pure Reason. Both in questions of fact and in problems of action Reason is, by its constitution, causally inert. The anatomist of human nature must give an account of our factual beliefs, our feelings and our moral principles different from the account he has to give of our apprehension of logical implications.

The main plank on which Hume's fame rests is, as he would have wished, his separation of causal inference from demonstrative reasoning.

A truth of reason is one the negation of which can be directly seen or indirectly shown to be absurd. No assertion of existence, and therefore no conjunction of different assertions of existence can be thus established. 'Hark, thunder, though there was no lightning' is surely false, but knowledge of its falsity comes by meteorological investigation, not, like fallacies, by unaided logical acumen. Logic teaches us no laws of nature. To predict or diagnose is not to deduce. In the strict sense of 'Reason', it is not in virtue of his Reason that the doctor diagnoses a fractured bone or the shepherd predicts the rising of the sun. Both are profiting from lessons learned, but these lessons were taught by unorganised or organised experience.

There are other things, besides the factual inferences of the sciences and daily life, which had traditionally been piously but erroneously credited to Reason. Moralists had spoken of the control of Passion by Reason, and of Reason as the source of moral rules. Theologians had endowed Reason with the power to prove the existence of God and the immortality of the soul either *a priori* from definitions, or *a posteriori* from the constitution of the cosmos. In each case Hume scrutinises the ascription and essays to demolish it. Certainly irritation and alarm may be curbed; but the curb is provided not by the inert thought of some premisses and conclusions, but by a countervailing passion, like self-interest or shame. Such passions may resemble Reason in being unperturbing or 'calm', but they differ from it in being dynamic. Certainly, too, it is in the light of moral rules that we approve or disapprove of people's actions and characters. But these rules are not axioms or theorems; they are the complex product, primarily, of habituation and sympathy. In a loose sense of 'rational', indeed, we have to be rational to have moral principles. For we have to be capable of reflecting on general rules. But such reflecting is not Euclidean reasoning.

The existence of God and the immortality of the soul are similarly removed from the class of things decidable by *a priori* reasoning. But they are virtually removed also from the class of things decidable by *a posteriori* inference. The particular inferences and the general laws of natural science, the curbing of passions, and the acceptance and application of moral rules, are all denied to be operations of Reason; yet all are granted alternative status. They are transplanted, not eradicated. But the propositions of religion are neither logically necessary nor yet experimentally well founded. The *a priori* arguments for them are fallacious; the *a posteriori* arguments for them are nugatory. Here Hume proffers, save by

lip-service, no loose sense of 'reasoning' in which we are justified in claiming to reason to religious conclusions. He is not a sceptic of natural science or of ethics; a religious sceptic he is.

By what methods does Hume separate from the operations of Reason, in its strict sense, the factual inferences of natural science and daily life, the control of passions, and the acknowledgement of moral rules? Hume's own answer would, I think, be this: that as an experimental psychologist he collects the data of introspection and subsumes them under the laws of association and custom-formation. This enables him to give a scientifically probable description and causal explanation of the specific differences between these different mental operations. If this were what Hume really did or were all that he did, the demise of his psychological mechanics would carry with it the demise of his philosophy; and this it is very far from doing.

I may indicate what, in my view, Hume really did, as distinct from what he supposed himself to be doing, in the following manner. Wanting to describe in psychological terms what takes place when a doctor, say, infers a wound from a scar, or a scar from a wound, Hume begins by describing the ways in which one thing commonly puts us in mind of another. The thought of Romulus leads to the thought of Remus or the thought or perception of lightning puts us in mind of thunder. But with his scrupulous nose for conceptual differences, Hume detects that this is not enough. There is no 'therefore' in the passage from the thought of Romulus to the thought of Remus. For thunder to be inferred from lightning, the passage of thought must be more than a mere case of being put in mind of thunder. To infer 'lightning, so now for thunder' requires the possession and application of a generalisation of the pattern 'Whenever lightning, then shortly thunder'. A factual 'therefore' flourishes the fiat of such a generalisation. Get someone to entertain doubts of the generalisation *Whenever an A, then a B*, and you get him to refuse to make or concede any factual inference from an actual observed A to an unobserved B, for all that he may well still be regularly put in mind of B's by his observation of A's.

What then is the origin of the knowledge or belief that *whenever an A, then a B*? Again Hume begins psychologically by describing the ordinary processes of familiarisation. We get used to A's being succeeded by B's and come to be surprised if an A occurs with no B following. But again Hume's scrupulous nose for conceptual differences prevents him from being contented. Sometimes we are satisfied that *whenever an A, then a B*, though we

have encountered far too few instances of the conjunction of A with B to have become used to it; and sometimes we are not satisfied with a generalisation, though we have encountered very many instances of the conjunction. The intellectual operation of induction embodies some element over and above that of familiarisation. At our best, we generalise with discrimination. We have and we use tests for our generalisations. There are Rules for Judging of Causes and Effects, in virtue of which Rules we can be careful or careless. In mere familiarisation there is no place for care or the lack of care, for talent or the absence of it. 'Scientific' is a laudatory and not merely a descriptive adjective. A Newton is not just ridden by more blind habits of expectation than the layman or the dog; he thinks more shrewdly and experiments more extensively and deliberately. Here, as almost everywhere else, Hume's initial attempts to reduce some supposed operation of abstract Reason to a product of the interplay of blind mental forces are successful and his conceptual scruples are aroused by the smothering effects of his own levelling work. To use a gratuitous modern diction, his phenomenological left hand insists on bringing into relief just what his psychological right hand had tried to flatten down. Hume sees what more is needed in the very act of trying to make do with a bare minimum; and what he sees is very often what no one else had even considered. Induction is indeed not deduction, and Hume showed their differences. But induction is also not mere familiarisation, and again it is Hume who showed their differences. He showed these differences by means of philosophical arguments, the cogency of which derives not at all from his pretended Experimental Method. Again and again Hume was the hero of a double combat; first with the hierarchical system, and then with his own reductionist system. Yet the second victory does not invalidate the first.

Even in the twentieth century we are capable of feeling a sense of grievance with Hume for bringing Reason so low. We object, perhaps, that Newton's thinking is surely a palmary example of human rationality at work. In his consideration and decision of his moral problems Mr Everyman is surely sometimes thinking with all the seriousness and independence that the most exacting epistemologist could demand. We grant that neither Newton nor Mr Everyman achieves, tries to achieve or should try to achieve the formal rigours of Euclidean demonstrations. But why limit the operations of Reason to deducing and demonstrating? Why sanctify just these highly specialised operations? Why put the *a priori* on a pedestal?

In part our attitude is itself the gift of Hume. He, in levelling abstract reasoning down, levelled the human understanding up to human stature. He did indeed show that induction, factual inference and moral judgement are not operations of tracing logical implications. But he also taught us that this was no slur. Indeed he frequently allows us to use expressions like 'reasoning' and 'rational', in a loose and popular manner, to cover just what he denied to be reasoning or rational in their strict sense.

In part, too, our attitude derives from our almost complete emancipation from the venerable idea of human nature as a pyramidal system of Faculties. To Hume, and in some degree to Locke, this emancipation is chiefly due—though they did not entirely emancipate themselves. For them it was still, as it is not to us, a live question whether this or that element of experience was to be affiliated to Reason, Imagination, Sense, Memory, Understanding, Will or Passion, and this despite the fact that the whole picture of the Mind as a federation of Faculties had a function only inside the entire hierarchical world-scheme of which Hume was, not quite consciously, completing the demolition. Hume could still relapse, however heretically, into the old orthodoxy, as when he says, 'Reason is and ought only to be the slave of the passions.'

We, therefore, being unhampered by this scheme of ideas, feel neither republican glee nor royalist resentment at Hume's discrimination between different kinds of propositions and between different kinds of argumentative bases for them. Indeed on most days of our lives we now dispense altogether with such words as 'Reason' and 'rational'. There remains no special job for them to perform. Epistemological snobbery has been despatched by Hume and epistemological anti-snobbery has gone with it. We have learned, largely from Hume, to discuss human thought and conduct in terms of methods, efficacies and results, instead of in terms of badges and degrees.

Like all the great philosophers of the seventeenth and eighteenth centuries, with the exception of Kant, Hume was unacademic. He wrote in order to be read and discussed by the literate public. His writing had therefore to achieve and did achieve that peculiar magic that makes literature. His idioms are not the idioms of the lecture-hall. His doctrines are not supplementations of a curriculum. He wrote neither from a Chair nor for a Chair. He meant not to conciliate, but to shock, his seniors.

Unlike things written according to a didactic tradition, literature is

impatient of translation and synopsis. Hume's philosophy does not lend itself to the sandwich-nutritition even of English-speaking lecture-audiences, much less to that of foreign lecture-audiences. The Hume who is sliced up for these audiences has to be grossly unlike and markedly inferior to the Hume who is read. But I guess that Hume is unsympathetic to foreign lecture-audiences not only because his voice does not easily survive transmission, but because the voice itself displeases Continental ears. It is too irreverent for some; and its irreverence is too cheerful for others. It conveys no tidings of hope, but also no tidings of despair. But through the youthful accents of the good-humoured iconoclast, there rings another accent which jars equally on those who severely disapprove and on those who severely approve of irreverence. This is the accent of the thinker to whom even beliefs or unbeliefs are less important and less interesting than cogency and trenchancy of argument.

10

PHENOMENOLOGY

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I want to distinguish the question what Phenomenology is from certain special questions about certain special claims that are made for it.

What Phenomenology is

Phenomenology is not specially concerned with phenomena in the sense of sense-data. Nor is it, unless *per accidens* any sort of Phenomenalism.

The title (which is a misleading one) derives from the following historical source. Brentano, following Herbart, repudiated the psychologies which treated mental faculties as the ultimate terms of psychological analysis, and insisted instead that the ultimate data of psychology are the particular manifestations of consciousness. These he called 'psychic phenomena', not as being appearances as opposed to noumena or things in themselves, but as being directly discernible manifestations of mental functioning as opposed to being inferred or constructed mental 'powers'. So 'Phenomenology' only means, as it stands, the science of the manifestations of consciousness and might have been used—though it is not—as another name for psychology.

Brentano next distinguished between two radically different sorts of enquiry into mental functioning. One is empirical—or what he calls, oddly, 'genetic'—psychology, which is inductive, experimental and

statistical, and the conclusions of which are only probable generalizations. The other is the enquiry into the concepts or presuppositions of any such empirical psychology, namely, such enquiry as 'What is it to be a case of remembering, judging, inferring, wishing, choosing, regretting, etc.?' It asks what ultimate forms of mental functioning there are to be exemplified in particular instances, and so is not concerned, e.g., with what it is that makes this or that man remember something, but with what it is for a mental act to be a case of remembering.

He got to this position, I gather, in this way. Convinced that the physiological and the associationist psychologies were radically false, he had to examine and reject their presuppositions—in particular, the presuppositions (1) that mental life is a mere avalanche of atomic 'ideas' and (2) that these 'ideas' are in no sense *of* anything. Instead, he argued, we can know *a priori* (1) that any case of consciousness of any form must be a case of consciousness *of* something and (2) that there are irreducibly different sorts of mental functioning, so that while 'ideas' may be necessary ingredients in judging and wanting, judging and wanting cannot be analysed without residue into 'ideas' or complexes of them.

Whatever his line of approach may have been, he and his pupils were always perfectly clear that the analysis of the root types of mental functioning is one thing and the experimental or statistical search for the natural laws governing the occurrence of mental acts and states is quite another. And I think that they were right.

Husserl uses the term 'Phenomenology' to denote the analysis of the root types of mental functioning. And he tries to show (1) that Phenomenology is anyhow a part of philosophy; (2) that it is an enquiry which can become a rigorous *science*: (3) that it is *a priori*. (1) and (3) seem to me to be true; (2) seems to me to be either false or an awkward terminological innovation. For I don't think that philosophy or any part of philosophy is properly called a 'science'. Philosophical methods are neither scientific nor unscientific. But this is not a question which I want to deal directly with here.

It is not a new discovery or a new theory that at least a part and an important part of philosophy consists in the analytical investigation of types of mental functioning. Theories of knowledge, belief, opinion, perception, error, imagination, memory, inference and abstraction, which can all be classed together as epistemology, have ever since Plato constituted at least an important part of philosophy. And anyhow a large part of Ethics

has, since Plato and Aristotle, consisted in the analysis of the concepts of motive, impulse, desire, purpose, intention, choice, regret, shame, blame, approbation and the like. And while parts of the treatments given by historical philosophers to these subjects have been not analytical, but speculative or hypothetical or dogmatic, other parts have always been strictly analytical and critical and have therefore been proper cases of what Husserl describes as the phenomenological method. So nothing much save a rather misleading title would have been secured by Husserl had he merely asserted that these and such like enquiries are all phenomenological enquiries, in that all are enquiries into the nature of more or less radical types of mental functioning.

He does, of course, go a good deal further than this. First of all he argues, in opposition, I take it, to special schools of positivists and experimental psychologists as well as to the whole associationist theory of psychology, that the way in which types of mental functioning are analysed by philosophers or phenomenologists when they know their business is quite different from the way in which empirical psychology enquires into the causal laws governing the occurrence of mental states, acts and dispositions in the life-history of actual persons in the world. For (1) the method of philosophy proper is *a priori*, whereas that of the others is inductive; and (2) the very questions raised by empirical psychology embody the concepts the analysis of which belongs to phenomenology. So that in two connected ways phenomenology is independent of empirical psychology: (1) that, being *a priori*, phenomenology cannot employ as its premisses either the particular observations or the inductive generalizations of empirical psychology and (2) that, being analytical or critical, it enquires what any psychological proposition of this or that sort really means (whether it is true or false), and so throws light on and cannot derive light from the particular psychological propositions which psychologists put forward as true or probable.

This seems to me to be true and generalisable. Not only psychology, but all sciences and all sorts of search for knowledge or probable opinion aim at establishing particular or general propositions. But whether in any particular case such a proposition is true or false, the analysis of what it means, or of what would be the case if it were true, is different from and in principle prior to the discovery of what proves it or makes it probable. Thus, the philosophy of physics is indifferent to the answers that physicists give to the questions of physics, the philosophy of mathematics does not

wait for the solution of all possible equations, and in ethics we must have some notion of desert, and one which we are already in principle ready to analyse, whether or not we are able to decide that a given defendant deserves a certain punishment.

No philosophical propositions are empirical either in the sense of being about this as distinct from that particular subject of attributes or in the sense of implying as premisses propositions which are so.

This does not, of course, involve that philosophical arguments should not contain references to particular cases as instances or examples. On the contrary, a good illustrative example is often of great utility. But an *exempli gratia* is not an *ergo*—as is shown by the fact that imaginary examples are often just as useful as actual ones, which would not be the case in a genuine inductive argument.

Husserl's apriorism is, perhaps, nothing very alarming. But, at the time of the last century, naturalism and empiricism were so fashionable that Husserl had to prosecute very difficult and painstaking logical enquiries in order to justify it. And we should first notice three cardinal points in his account of the *a priori* nature of philosophical propositions.

(1) He does not hold that philosophers should or can construct deductive systems. Demonstration *ordine geometrico* belongs to mathematics and not to philosophy. For Husserl Spinoza's notion of philosophy as a sort of metaphysical geometry is a completely mistaken sort of apriorism. And I think Husserl is right.

(2) Further, Husserl refuses to admit into phenomenology, or by implication into philosophy in general, any sort of metaphysical system-building or speculative construction. Dogmatic metaphysics is put out of court by Husserl just as much as by Kant. (It is, however, arguable that some of Husserl's conclusions are of the nature of metaphysical constructions. His half-solipsist and half-monadological account of the experienced world is not at all what one would expect to find deriving from a purely analytical enquiry into the *summa genera* of the manifestations of mind.) But with his official view, that the business of philosophy is not to give new information about the world but to analyse the most general forms of what experience finds to be exemplified in the world, I completely agree.

(3) On the other hand Husserl's special account of the nature of *a priori* thinking seems to me to be wrong. Rather like Meinong, he holds, or used to hold, that universals or essences, as well as propositions, are objects of a

higher order. And of these we can have a knowledge by acquaintance analogous to (though of a higher order than) our perceptual acquaintanceship with particulars like this tree and that man. We can, he holds, perceive or intuit essences in the same sort of way as we can perceive or intuit particulars, except that the direct intuition of an essence requires to be founded in the direct intuition of a particular instance of it (which may be real or imaginary). Philosophy is, accordingly, a sort of observational science (like geography); only the objects which it inspects are not spatio-temporal entities but semi-Platonic objects which are out of space and time. These are correlates to acts of conception and judgement, though whether it is essential to them to be so correlative or whether it is accidental is left rather obscure in Husserl's writings. I fancy that Husserl used to think of them as independently subsisting and now regards them as intrinsically contents of possible acts of thinking.

I do not myself believe that phrases such as 'being a so and so', 'being such and such' and 'that so and so is such and such' do denote objects or subjects of attributes. For I don't think that they are denoting expressions at all. Consequently, though I can know what it is for something to be a so and so, I think that this knowledge is wrongly described as an 'intuition of an essence'. For intuition, which I take to be a synonym for knowledge by acquaintance or perception, does seem to be or to involve a relation between two subjects of attributes, the perceiver and the thing perceived. And I do not think that what Husserl calls 'essences' are subjects of attributes at all. However, I do not think that the whole notion of phenomenology hinges on this special theory, so I do not think that it need be discussed here. But we shall have to discuss later a more general question, which is connected with this one, concerning the theory of intentional objects.

So much for the general plan of phenomenology. It is that part, or those parts, of philosophy in which the root types of mental functioning are distinguished and analysed. And most philosophers have talked phenomenology, as M. Jourdain talked prose. What Husserl has done so far is (*a*) to distinguish, as his predecessors had largely failed to do, between the philosophical and the psychological methods of investigating consciousness; (*b*) to make clear that anyhow this part of philosophy is analytical and not speculative or hypothetical; and (*c*) to name it with a rather unfortunate name.

Now for his main doctrines *in* phenomenology. It is an 'essential

intuition', that is, it can be known *a priori* that all consciousness is consciousness of something. To wish is to wish for something, to regret is to regret something, to remember, expect, decide and choose are to remember something, expect something, decide something and choose something. To every piece of mental functioning there is intrinsically correlative something which is the 'accusative' of that functioning. But though all consciousness is 'intentional' or 'transitive', it is not all intentional or transitive in the same way.[1] The act of remembering may have the same object as one of regretting, but they are different sorts of acts and 'have' their object in different manners. Moreover, some sorts of 'consciousness of' demand others as their platform. I cannot regret without remembering, though I can remember without regretting. And, again, I cannot remember without having once directly perceived, but I can perceive without having to remember. And so on.

Next, all intentional experiences, whatever their 'accusatives', must belong to an experiencing ego. *Cogito ergo sum* is a cardinal proposition in Husserl's phenomenology. 'What is it to be an "I"?' is perhaps, the most general way of formulating the question of phenomenology—indeed Husserl coins the unattractive alternative title for phenomenology of 'descriptive transcendental egology'.

These two marks of intentional experiences—namely, that in all of them there is a subject-pole and in all of them there is an object-pole—are not independent. They are intrinsically correlative. But the correlation can take as many different forms as there are different types of intentionality. For a type of intentionality is simply a not further analysable way in which an I may be about something.

On the other hand, the subject-pole is, for Husserl as for Descartes, something the reality of which is philosophically unimpugnable and presuppositionless, whereas any of its objects upon which it may from time to time be directed may have no other reality than that with which it is endowed by being what the self is dreaming, say, or expecting or believing in.

As we shall see, Husserl does, in fact, terminate in a subjectivist or

[1] 'Intentionality' has nothing special to do with intending in our sense of purposing. It is a revival of a scholastic term and is used only as a name for the fact that mental acts are *of* objects. I use the term 'accusative' to render 'Gegenstand'. 'Object' is damagingly equivocal since it may mean 'entity' or 'subject of attributes' as well as meaning 'object of . . .'.

egocentric philosophy, though he is at pains to argue that it is not a form of solipsism.

THE PHENOMENOLOGICAL REDUCTION

In our everyday frames of mind, and particularly in our scientific frame of mind, we treat the world and the things and happenings in it as independently existing. That is, we focus on their relationships to one another and ignore the fact that they all alike stand to us as pegs upon which we are hooking our interests, attentions, queries, emotions, decisions and volitions. They are—but we habitually fail to remember that they are—constituents of our variegated cognitive-*cum*-volitional-*cum*-emotional experiences. We think about things, but do not ordinarily notice that they are at least, whatever else they are, what we are thinking about.

Now, Husserl argues, of our experiences we can have direct and self-evident perception. Reflective inspection of our own *actus* of consciousness can give us knowledge in the strict sense of the term. I can know both that I am enacting an act of a certain description and what that description is. And he rather assumes than argues, following Descartes, that there is no other sort of self-evident (or knowing) inspection of particulars.

Let us, then, by a sort of Method of Doubt bracket out or shelve all that we accept in our everyday or scientific frames of mind over and above what reflective inspection can warrant. This will leave as one of our most important sets of data to be studied, such facts as that we accept the proposition that the sun is bigger than the moon, but will bracket out the fact (if it is one) that the sun *is* bigger than the moon. We are left with *Erlebnisse*, and that means that we are left with the whole experienced world. But what (if anything) exists or happens or is the case without being a constituent of experiences is not the theme of any phenomenological proposition.

What an 'object' is now is nothing save what sort of an 'accusative' it is to what sorts of intentional experiences. It is just that which constitutes particular mental functionings as the particular mental functions that they are. In a word, it is just the special character of an act or set of acts, or, to employ a misleading expression of which Husserl is fond, the object of an intentional experience, treated as such, is just the intrinsic meaning or sense of the experience.

We can now say that whatever may be the special objects of such studies and interests as physics, biology, astronomy, psychology and the other natural sciences—history, sociology, economics and law, business, politics and, in a word, of all intellectual, practical and emotional occupation, all alike have, and have essentially, the character of being constituents of experiences. They are the ways in which I or we function.

Consequently, Husserl argues, both the scientific search for the laws governing the existence of such things and the special philosophical analyses of the essences of them presuppose the philosophical analysis of the types of mental functioning in the several instances of which these objects present themselves as the specifying or individuating constituents.

So phenomenology is the first philosophy, or the science of sciences. It and it alone has for its topic the *summum genus* of the objects of all the other sciences and interests. It even has priority over logic.

It is therefore, for Husserl, part of the nature of all possible subjects of attributes to be constituents in the intentional experiences of an 'I'. But as persons in the ordinary sense of the term are only empirically discovered things in the world of objects, it is not empirical selves, but a pure or transcendental self whose 'intentions' are the home of the being of objects. And Husserl accordingly develops a Kantian or neo-Kantian doctrine of a pure or absolute subject which is other than you or I for the reason that you and I are merely items in the list of the possible accusatives of intentional experiences.

I think myself that Husserl is (with Kant) confusing 'I'-ness with a new 'I'. Propositions about '*Bewüsstsein überhaupt*' are really about what it is to be an 'I' having experiences, and not about an 'I' that has them. But I doubt if it would be profitable to let our discussion turn upon this question.

Husserl now seems to have reached the position that nothing exists—indeed, that it is nonsense to speak of anything existing—save, on the one hand, a pure subject of experiences, or several such subjects which exist in their own right, and, on the other hand, the entire realm of intentional objects, the being of which is their being 'intended'.

This conclusion seems to me to be false, and with it the consequential doctrine that phenomenology is logically prior to all other philosophical or scientific enquiries. Phenomenology seems to have turned in Husserl's hands into an egocentric metaphysic. But this seems to be the result of one or two false theories which need never, and should never, have trespassed into the analysis of types of mental functioning.

(a) The doctrine of intentional objects

It was an assumption rooted in the Cartesian and Lockean theories of mental life that what I am aware of when I am aware of something must always be an 'idea'. We need not bother our heads about the definition of 'idea' (for nonentities are not necessarily definable), but at least it was held that an idea is a mental something and something existing or occurring inside the mind that is aware of it. The theory of intentionality is an attempt not to repudiate, but to modify, elaborate and reform the 'idea' epistemology. The first modification was the distinction between the act and its object, the *ideatio* and the *ideatum*, e.g. in the idea of a circle, the circle is something with a centre but the ideating of it is not. But it was still supposed that the circle was really existing or occurring in the mind together with the act of which it was the 'content'. Similarly, the proposition which I judge and the desideratum which I desire, though distinguishable from the acts of judging and desiring, were still supposed to be actually resident where these resided.

Husserl, however, like Meinong in this respect, denies that what an act is 'of' is essentially contained in or adjoined to the act. 'Contents' are not real parts of mental functioning. Introspection cannot find them. (This is proved by the fact that two acts of different dates can have the same object.)

Nor can all possible 'contents' be lodged in the actual world of space and time. For what fancies, false beliefs, wishes, expectations and conceptions are of, are nowhere to be found there. And as Husserl seems, anyhow latterly, to reject Platonic or Meinongian subsistence theories, it becomes very hard to see in what sense he holds that 'intentional objects' really are genuine objects or subjects of attributes at all. He *should* hold (I believe) that what we miscall 'the object or content of an act of consciousness' is really the specific character or nature of that act, so that the intentionality of an act is not a relation between it and something else, but merely a property of it so specific as to be a differentia or in some cases an individualising description of it. He does in fact, however, continue to speak as if every intentional act is related, though related by an internal relation, to a genuine subject of attributes.

I would urge against this view (1) that it is erroneous in itself and (2) that it originates from an erroneous assumption that 'consciousness of . . .' is a true *summum genus* of which the several forms of mental functioning (including knowing) are true homogeneous species.

(1) It is certainly a convenient and popular idiom to speak of 'the objects of' imagination, desire, belief, knowledge, etc., when we wish to refer to what someone imagines, desires, believes or knows. And as we often use 'object' as a synonym for 'thing', as when we call a Chippendale chair 'a handsome' or 'expensive object', we have anyhow this motive for supposing that some subject of attributes is being referred to when we speak of what Jones imagines or wants or believes or knows. But the supposition seems to be a mistake. For the phrase 'the object of Jones' desire or fancy', e.g., is not necessarily a referentially used 'the'-phrase, any more than the 'the'-phrase in 'Poincaré is not the King of France'. It is almost certainly a systematically misleading expression. For there is nothing of which we can say truly or even falsely '*that* is the object of Jones' desire or fancy'. We can indeed state which attributes Jones is imagining something to be characterised by or what are the features of his situation, the absence or alteration of which Jones desiderates. But these statements will not require us to employ descriptive phrases referring to queer non-actual objects. Such references could not be made, for they would be self-contradictory.

If, then, the doctrine of intentionality implies that to every case of mental functioning of whatever sort there must be correlative a special something describable as an 'intentional object', then this doctrine seems to be false.

(2) Husserl assumes that all forms of mental functioning are species or sub-species of a *summum genus* called 'consciousness of . . .'. And by 'consciousness of . . .' he means to denote not *knowing*, but something of which knowing is, with believing, guessing, dreaming, craving, etc., only a species. From this, of course, it has to follow that often I am 'conscious of' something which is not a known reality and so is not real at all. (It is not possible to state this sort of view in an unobjectionable way.)

Now in my opinion Cook Wilson has shown in a strictly phenomenological manner that this whole assumption is vicious. Knowing is not one definable species of 'consciousness of . . .' among others, it is something anyhow partly in terms of which believing, fancying, guessing, wanting and the rest have to be defined. Belief, e.g., is a state of mind involving *ignorance* of such and such a *knowledge* of so and so: it involves more than that, but at least it involves this double reference to knowledge.

Consequently the 'intentionality' of mental acts must be defined in terms not of 'consciousness of . . .' but of 'knowledge of . . .'. And as it is,

if not self-evident, anyhow plausible to say that what I know to be the case is so whether I know it or not, a phenomenology operating with this modified notion of intentionality would not be obviously bound to terminate in an egocentric metaphysic, or to claim a priority over all other branches of philosophy, such as logic or the philosophy of physics. For it would no longer be essential to any subject of attributes to be 'accusative' to a mental act. Intentionality will not now be an internal relation.

(b) Immanent versus transcendent perception

An important premiss in Husserl's argument which helps to involve him in his quasi-solipsistic conclusions is his theory of the self-evidence of immanent perception and the fallibility of transcendent perception.

By 'immanent perception' he refers to the direct recognition or inspection that I can have of my own mental states and acts when these are concurrent with the inspection of them. I take it that he is referring to what we call introspection. When, which is fairly infrequent, I introspect upon my present *Erlebnis*, I can *know* in the strict sense that I am enjoying this *Erlebnis* and what sort of an *Erlebnis* it is. Introspection tells the truth, the whole truth and nothing but the truth.

By 'transcendent perception' he refers to the perception of physical things and events, the mental acts and states of others, and those mental acts and states of my own which are not contemporary with the inspection of them. This, Husserl maintains, can never be or give *knowledge*. It is never self-evident, and the possibility of delusion is always present. It follows that sciences of 'the external world' cannot be or give knowledge, but that the science of the self can: and all that I can *know* about the world is what I can know about my fallible cognisings of the world and my resultant practical and emotional attitudes towards it. And if this were true, Husserl would, I think, have established some sort of primacy for phenomenology.

But (1), while I see no reason to doubt that we *can* inspect and recognise states and acts of our own minds, I think that this introspection is not really perception (save in an enlarged sense). I believe that introspection is merely remembrance controlled by a special interest. But whatever it is, it seems clear that we often make mistakes about our mental condition. Very likely these should not be attributed to 'mistaken introspection', but are mistakes due to an unnoticed omission to introspect. But then the same

indulgence should be allowed to what is very likely miscalled 'mistaken perception' in the sphere of what Husserl calls 'transcendent perception'.

(2) I can see no *a priori* grounds for supposing that perception can only be knowledge where the object perceived and the perceiving of it are conjoined parts of one stream of experience. It seems to me just the old prejudice that the thing known should be in some way very near to the knowing of it.

So I see no grounds for denying universally that we can have knowledge by perception of physical things and events. Husserl's arguments on this point, which I have not expounded, seem to me only to show that particular perceptions don't tell the whole truth about their objects. But if they can tell us the truth and nothing but the truth, no conclusions damaging to the world seem to arise from the comparison of this sort of perception with introspection.

My conclusion is, then, this: (1) There is an important part of philosophy describable as the philosophy of psychology. It is, like any other part of philosophy, *a priori* in the sense that its methods are not inductive and that its objects are not this as distinct from that particular matter of fact. It is an enquiry into the forms of certain classes of facts, or, to put it in another way, it enquires what is really meant by such propositions as 'Jones knows or believes such and such', 'Jones wanted this but chose that', 'Jones took what he saw to be a so and so', 'I am a such and such'. And we can, if we like, call this part of philosophy 'phenomenology'.

(2) The fact that Husserl concludes that the world consists of nothing but bi-polar mental experiences, and consequently that phenomenology is 'first philosophy' is the result of his acceptance of one or two theories which are not true and are not arrived at by genuine phenomenological analysis.

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PHENOMENOLOGY VERSUS 'THE CONCEPT OF MIND'

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PHENOMENOLOGY

Husserl's Phenomenology stemmed from Brentano's critique of the atomistic and associationistic psychology of Hume and Mill. Brentano realised that the then prevalent English theories of mental life were impotent to do justice to the notions of conception, judgement and inference, of the will and of the feelings. The attempt to reduce all mental operations, attitudes and states to sensations and their echoes, randomly coagulated by association, inevitably eliminated just what make the differences between thinking and mere wandering, between choice and mere impulse, between judgement and mere fancy, between inference and mere suggestion, between doubt and mere vacancy.

In introducing his doctrine of the essential intentionality of consciousness, and in demarcating the different levels and dimensions of this intentionality, Brentano was—and he knew that he was—laying down *a priori* principles for psychology. He was not formulating any hypotheses about what we might expect to find happening when a person makes up his mind that something is the case, or resolves to conduct his life in a certain way. He was bringing out what must be the case for a mental process to be

one of judging or of resolving. There could be no empirical investigations into, say, the development of the child's power to count or to infer unless the enquirer already knew what would constitute an activity of counting or inferring.

In effect, Brentano was distinguishing conceptual enquiries from factual enquiries, and demanding that the factual enquiries of empirical psychologists should be preceded by non-empirical enquiries into the compositions and connections of the concepts under which fall the manifold manifestations of mental life.

Husserl gave to this field of conceptual enquiries the title of 'Phenomenology'. The title has always puzzled Anglo-Saxon students, who, while familiar with the Platonic and Kantian uses of the word 'phenomenon', are quite unfamiliar with Brentano's idiosyncratic use of it, to stand for whatever could carry the epithets 'conscious' and 'consciously', that is, for Cartesian indubitables.

Husserl adopted the Platonistic practice of describing what I have called conceptual enquiries as enquiries into Essences. This idiom, which by itself would have been merely over-portentous for Anglo-Saxon tastes, went with some special doctrines about the method of conceptual enquiries which English thinkers did not share.

Husserl at the turn of the century was under many of the same intellectual pressures as were Meinong, Frege, Bradley, Peirce, G. E. Moore and Bertrand Russell. All alike were in revolt against the idea-psychology of Hume and Mill; all alike demanded the emancipation of logic from psychology; all alike found in the notion of meaning their escape-route from subjectivist theories of thinking; nearly all of them championed a Platonic theory of meanings, i.e. of concepts and propositions; all alike demarcated philosophy from natural science by allocating factual enquiries to the natural sciences and conceptual enquiries to philosophy; nearly all of them talked as if these conceptual enquiries of philosophy terminated in some super-inspections of some super-objects, as if conceptual enquiries were, after all, super-observational enquiries; all of them, however, in the actual practice of their conceptual enquiries necessarily diverged from the super-observations that their Platonising epistemology required. Husserl talked of intuiting Essences somewhat as Moore talked of inspecting concepts, and as Russell talked of acquaintanceship with universals, but of course it was by their intellectual wrestlings, not by any intellectual intuitings, that they tackled their actual conceptual difficulties.

After his *Logische Untersuchungen* (1899), Husserl's interests focused upon the Philosophy of Mind or Phenomenology; as did the interests of Bradley, Moore and many others. For Frege and Russell this interest was more peripheral. But already there were some big divergences—divergences which make me want to say that Husserl's path led him into a crevasse, from which no exit existed; whereas the epistemological travails of contemporary English thinkers led them, indeed, into morasses, but morasses from which firmer ground could be reached.

First, Husserl was so bewitched by his Platonic idea that conceptual enquiries were scrutinies of the super-objects that he called 'Essences', that he persuaded himself that these enquiries should and would grow up into another science—grow up, indeed, not just into one science among others but into the Mistress Science, to which all other sciences would be in tutelage.

Next, for special reasons he was convinced that the philosophy of mind was the basic part of philosophy. All other conceptual enquiries were logically posterior to enquiries into the concepts of consciousness, ideation, perception, judgement, inference, imagination, volition, desire and the rest. A Platonised Cartesianism would be the science of the basic Essences; and so be the Mistress not only of all the other sciences, but also of all the other parts of philosophy. He certainly so padded and inflated his theory of meaning that it came to cover at once (1) that which a linguistic expression signifies; (2) that which we take a sensible appearance, like a noise, to be the appearance of; (3) that which anything whatsoever is, i.e. the sort, kind or nature which it is properly classified as belonging to or possessing; and (4) that which constitutes what any given mental act, state or condition has for its intentional object. Consciousness was aggrandised into the source or donor not only of the significations of all significant expressions, but also of all that sensible appearances are apprehended as being the appearances of and ultimately of what anything at all is known to be, when we know what it is.

This caricature of Husserl's Phenomenology is intended to show up by contrast some of the predominant features of recent philosophy and in particular of the philosophy of mind in the English-speaking world.

(1) Apart from one or two brief flirtations, British thinkers have showed no inclination to assimilate philosophical to scientific enquiries; and *a fortiori* no inclination to puff philosophy up into the Science of sciences. Conceptual enquiries differ from scientific enquiries not in

hierarchical rank but in type. They are not higher or lower, since they are not on the same ladder. I guess that our thinkers have been immunised against the idea of philosophy as the Mistress Science by the fact that their daily lives in Cambridge and Oxford Colleges have kept them in personal contact with real scientists. Claims to Fuehrership vanish when post-prandial joking begins. Husserl wrote as if he had never met a scientist—or a joke.

(2) Even inside philosophy, no privileged position has with us been accorded to the philosophy of mind. Certainly, with us as elsewhere, and in this century as in other centuries, many philosophers have been primarily interested in problems of epistemology, of ethics, of aesthetics, of politics and of jurisprudence. But many others have been primarily interested in the philosophy of mathematics, of physics and of biology. We have not worried our heads over the question Which philosopher ought to be Fuehrer? If we did ask ourselves this question, we should mostly be inclined to say that it is logical theory that does or should control other conceptual enquiries, though even this control would be advisory rather than dictatorial. At least the main lines of our philosophical thinking during this century can be fully understood only by someone who has studied the massive developments of our logical theory. This fact is partly responsible for the wide gulf that has existed for three-quarters of a century between Anglo-Saxon and Continental philosophy. For, on the Continent during this century, logical studies have, unfortunately, been left unfathered by most philosophy departments and cared for, if at all, only in a few departments of mathematics. Having indicated, by contrast with Husserl, how we tend not to assimilate philosophy to science, or *a fortiori*, to super-science, I must now try to show what have come to be our ways of conducting conceptual enquiries and our theory of those ways of conducting them.

THE CAMBRIDGE TRANSFORMATION OF THE THEORY OF CONCEPTS

First for a prefatory terminological warning. By 'concept' we refer to that which is signified by a word or a phrase. If we talk of the concept of *Euclidean point* we are referring to what is conveyed by this English phrase, or by any other phrase, Greek, French or English, that has the same meaning.

So far this indication is entirely neutral between different philosophical theories about what sorts of things concepts *are*; whether, e.g., they are Lockean ideas or Platonic Essences. A child who understands something that he reads or hears gets what the words mean, though still totally incapable of following philosophical theories about the status of meanings. But already we have to notice a certain hesitation in ourselves about the natural reference of the word 'concept'. It seems more natural to speak, for example, of the concept of *equality* than of the concept of *equal to*; of the concept of *existence* than of the concept of *exists*; of the concept of *negation* than of the concept of *not*. When we need to mention that which is conveyed by an adjective, a verb, a preposition, a conjunction or even by an ordinary concrete general noun like 'man', we tend to make use of some corresponding abstract noun. We find ourselves speaking of the concept of *pleasure* and not of the concept of *pleased* or the concept of *enjoys*; of the concept of *unity* and not of the concept of *one* or *single*. Perhaps this transference makes no difference. Does not the abstract noun 'pleasure' mean exactly what is meant by the corresponding verb 'enjoys' or the adjective 'pleased'? But it transpires that the answer must be 'no'. If I say 'I enjoyed that concert', I cannot simply replace the verb 'enjoyed' by the noun 'pleasure'; since no sentence would result. We shall see before long that an inevitable generalisation of this point led to most important results.

In the first three years of this century Russell was chiefly engaged in the development of mathematical logic, a task in which an essential element was his philosophical enquiry into the key-concepts of formal logic and of arithmetic. This enquiry occupies some of the early chapters of his *Principles of Mathematics* (1903), as well as many of his subsequent writings. These key-concepts were those of *all, some, any, a, the* (singular), *the* (plural), *not, is a . . . is identical with, exists, if, and, or, . . . such that . . .*, together with the concepts of the *variable* (or *x*) and the *propositional function*. Though still as unquestioning as Husserl in his general adherence to a Platonic theory about what concepts are, Russell was already being forced by considerations of logic itself to realise that it was not enough to allocate a separate Platonic universal or Essence to every meaningful word. The phrase 'Socrates and Plato' cannot be just a list of Socrates, Plato and 'and'-ness—since the conjunction of this postulated third member with the other two would require once again the notion of *and*. 'And' conjoins; it is not just a further item to be conjoined. *Mutatis mutandis*, the same kind of objection rules out the idea of treating any of the other key-concepts of logic as

terms, i.e. as objects mentioned by the statements which incorporate such words as 'all', 'not', 'the' and the rest. 'All men are mortal' and 'Some men are not mortal' say different things; but they are not about different subject-matters. The former is not about *Allness*, nor the latter about *Someness* and *Notness*.

Russell was, at this stage, especially embarrassed by verbs. He saw that 'Brutus assassinated Caesar' is a significant sentence, while 'Brutus, Assassination, Caesar' is not a sentence at all, but just a list. But he was unable to express what distinguishes the meaning of the live verb '. . . assassinated . . .' from the meaning of the corresponding verbal noun 'Assassination', save by saying that that organic unity of a truth or falsehood which is contributed by a live verb is not in the gift of the corresponding verbal noun, nor even of this noun in collocation with any number of attendant verbal nouns. What is conveyed by an entire sentence cannot be conveyed by a sequence of names of objects, even Platonic objects. To examine what is meant by one of the logical words, or by any live verb, is to examine what it contributes to the entire statements in which it occurs. It is not merely to consider what it does by itself, since it does nothing by itself. It is *ex officio* auxiliary to the saying of true or false things as wholes.

This opened Russell's eyes to the possibility that many other sorts of expressions, simple or complex, might also be auxiliary to entire statements, instead of being designations of extra objects. It followed in fact, whether or not Russell saw it, that there could in principle be no such thing as intuiting or inspecting the concept of *not*, the Essence of *the*, or the notion of *assassinated*, since what is conveyed by the corresponding words is conveyed by them only in the total setting of some significant sentence or other. When we produce such a word, we are not mentioning an extra entity by name; we are in course of saying something unitary. Considering the meaning of such an expression is considering what is common to all the entire significant sentences in which this expression is constant and the rest is varied. Its meaning is an abstractible feature, not an extractible part of the unitary senses of the different sentences that incorporate it.

It was not Russell but Wittgenstein who, developing arguments of Frege, showed that the sense of a sentence is not, what had hitherto been tacitly assumed, a whole of which the meanings of the words in it are independently thinkable parts but, on the contrary, that the meanings of the parts of a sentence are abstractible differences and similarities between the unitary

sense of that sentence and the unitary senses of other sentences which have something but not everything in common with that given sentence. To put it in epistemological terms, we do not begin with the possession of concepts and then go on to coagulate them into thoughts. We begin and we end with thoughts, but by comparative analysis we can discriminate ways in which something is constant *vis-à-vis* what else is varied between different unitary things that we think. A human face is not a molecule of which its profile, its complexion and its expressions are the atoms; yet still we can discern similarities and dissimilarities between different faces in respect of these features. Similarly an assertion is not a molecule of which the meanings of the words in which it is worded are the atoms; yet still we can discern what features one assertion has and has not in common with another assertion.

Now, perhaps, we can begin to formulate the idea, familiar to us *ambulando* since Socrates, that philosophical enquiries are conceptual enquiries. Concepts are not things that are there crystallised in a splendid isolation; they are discriminable features, but not detachable atoms, of what is integrally said or integrally thought. They are not detachable parts of, but distinguishable contributions to, the unitary senses of completed sentences. To examine them is to examine the live force of things that we actually say. It is to examine them not in retirement, but doing their co-operative work.

When Aristotle was discontented with Plato's account of Pleasure, he would have got nowhere by, so to speak, just gazing hard at some insulated entity or Essence designated by this abstract noun 'Pleasure'. Instead he rightly considered what we are asserting or denying *in concreto* when we say that someone did or did not enjoy the concert; or that someone enjoys this piece of music more than that piece. Unlike the abstract noun 'Pleasure', the live verb '. . . enjoys . . .' is here actively making just that specific sense-contribution to which it happens to be dedicated.

Similarly our examination of the notion of *existence* cannot consist just in acts of contemplating a rarefied object, withdrawn, like a coin in a museum, from its native commercial transactions. We must consider what we assert when we assert, e.g., that there exists a prime number of a certain specification, when we deny that the sea-serpent or Father Christmas exists, when we ask whether mammoths still exist, when they existed and how long they existed for; and even when we tell someone to construct, destroy or preserve something. Especially we must consider wherein lies

the absurdity of such questions as 'Do you exist?', 'How many satellites of Venus do *not* exist?' and 'Can a thing exist *fast* or *intermittently*?'

This last point deserves amplification. In the course of his enquiries into the logical foundations of Arithmetic Russell had found his path obstructed by some quite unforeseen contradictions or antinomies. Some of the key-concepts of logic had turned in his hands, and generated not the docile consequences that were to be expected, but propositions which were true only on condition that they were false, and vice versa. The 'I am now telling a lie' of Epimenides exemplifies the kind of rebellious statements that barred Russell's progress.

After many attempts to circumvent the rebels, Russell brought in a new weapon. Some sentences, whose syntax and vocabulary are impeccable, convey neither truths nor falsehoods, but are nonsensical. They have been composed, sometimes on purpose, but sometimes unwittingly, in contravention of some latent conditions governing the possible associations of concepts with one another. Some dicta, which conform perfectly to the rules of school-grammar, still say nothing. In the metaphor used both by Husserl and Wittgenstein, the rules of *logical* grammar forbid the elements of these dicta to co-operate.

Russell used this new weapon as a crowbar to dislodge only certain local obstructions. In Wittgenstein's hand, it became the fulcrum for inverting the whole notion of meaning. Making sense and failing to make sense belong first to entire sentences. The notion of the unitary sense of a sentence is logically prior to the notion of the meanings of the words of which that sentence is composed. If, in a given significant sentence, we replace one of its words by another word of the same grammatical kind, the new sentence will not necessarily be significant. Though the new word is grammatically fitting, what it means, i.e. what it would contribute, if it could, may not fit. If in the sentence 'Manchester is near Liverpool' we replace 'near' by 'between'; 'Liverpool' by 'Sunday'; or 'is' by 'occurs', the result is nonsense. A concept is, so to speak, already shaped for the assertions, questions, commands, etc. into which it will fit; and shaped, therefore, not to go into other grammatically allowable vacancies. As Aristotle saw, in the sentence 'he began to eat his dinner, but was prevented from finishing', we cannot replace 'eat' by 'enjoy'. Eating is, but pleasure is not, a *kinesis*. A conceptual enquiry is, therefore, of necessity an enquiry not only into what can be significantly said but also into what cannot be significantly said with the word or phrase conveying the concept under

investigation. Its métier is a determinate and rule-governed métier, and the examination of it has to be the examination of the sense-conditions in which it can and cannot make its contribution. To do its work, it must be where it *can* do its work. The word 'between' cannot make its contribution at all unless at least three towns (say) are mentioned; and the verb 'occurs' demands to be escorted by the mention of an event, an escort which cannot be tolerated by the verb 'exists'.

When Wittgenstein wrote the *Tractatus Logico-Philosophicus* (1921–2) he drew certain very startling consequences from his inversion of the traditional theory of concepts and propositions. We saw that the statements 'All men are mortal' and 'Some men are not mortal' are not about different objects or entities; that is, the logical words 'all', 'some', 'are' and 'not' have the meanings that they have, not *qua* designating extra subjects or terms, but only *qua* making their specific contributions to the structures of the unitary senses of the sentences in which they function. From this it seemed to follow inexorably that neither the logician nor the philosopher can construct significant sentences *about* what is conveyed by these logical words. We can say true and false things about Socrates, but we cannot say true or false things about what is conveyed by 'not' or 'and' or 'is'. Certainly we can say true or false things about the *words* 'not' or 'if', inside inverted commas, e.g. that they are monosyllables or polysyllables. But the attempt to say true or false things about what these words convey results of necessity in nonsensical dictions like 'And is not in London'. The word 'and', not inside quotation marks, cannot replace the noun 'Socrates' in any significant sentence. What must function as a conjunction, if it is to function at all, cannot function as a subject-term. The same is true of any other logical word; of any live verb, like 'assassinated'; of any predicative expression, like 'is a man'; and, finally, of any entire sentence, like 'Socrates is a man'. The senses of complete or incomplete sense-conveying expressions cannot have said about them any of the things that can be said about Socrates. The formal logician can indeed exhibit the way that 'and' and 'not' function, by displaying them operating inside the skeletons of complete sentences, from which all informative content has been algebraised away. Like a horse-dealer, he can put 'if' through its paces, without baggage, or rider, by, for example, producing the formula 'for any proposition *p* and any proposition *q*, the compound proposition *if p then q* is incompatible with the compound proposition *p but not q*'.

But such a formula is not, *per impossible*, an informative assertion about a

subject-term called 'if'; it is a sentence (or rather a blank cheque for sentences) asserting something *with* 'if'. It exhibits the work done by 'if', but it does not, *per impossible*, ascribe attributes to that work since the word 'if' does not and could not occupy an object-mentioning place in that sentence-skeleton.

The conceptual enquiries that constitute philosophy are in an even worse plight than those that constitute Formal Logic. For the philosopher has apparently to try not just to deploy but to describe the concepts with which he is concerned. He has to try to say what Pleasure and Existence are. He has to try, necessarily in vain, to attach object-characterising predicates to non-object-mentioning expressions. But by no prestidigitation can the live verb 'enjoys' or the live verb 'exists' (except in inverted commas), be made grammatical subjects to live verbs. The philosopher's description of a concept is bound to terminate in a stammer. The Platonic dream of a descriptive science of Essences is shattered. The sense of a sentence and, therewith, the auxiliary senses of its parts are not describable things. They are not describable, for they are not things.

Some years after the *Tractatus* Wittgenstein was able, in practice if not in explicit doctrine, to disentangle the required notion of *elucidation* from the obsessive notion of *object-description* and so to rescue conceptual investigations from the menace of ineffability without re-assimilating them to inspections of entities.

But at this point let us cease to debate from the esplanade the art and possibility of philosophical swimming, and instead let us plunge into the water and feel for ourselves what it is like to be trying to swim. For this purpose I am going to reanimate three specific conceptual worries with which I attempted to cope in *The Concept of Mind*. Since I wrote this book some ten years ago, I have now attained the right seniority over my then self, to treat him not, of course, with the austerity of a judge, but with the candour of an elder brother.

THE PHILOSOPHY OF MIND

First a word or two about the programme of the book as a whole. Though it is entitled *The Concept of Mind*, it is actually an examination of multifarious specific mental concepts, such as those of *knowing, learning, discovering, imagining, pretending, hoping, wanting, feeling depressed, feeling a pain, resolving, doing voluntarily,*

doing deliberately, perceiving, remembering and so on. The book could be described as a sustained essay in phenomenology, if you are at home with that label.

The book does not profess to be a contribution to any science, not even to psychology. If any factual assertions are made in it, they are there through the author's confusion of mind. Next, the book has a central strategic motif. The philosophy of mind had, I thought, been systematically distorted by a pervasive conceptual mistake—namely the mistake of regarding a person as consisting of two compartments, his mind and his body, the two compartments being the fields of two disparate kinds of causality. This assumption of a bifurcated causality seemed to me to result in a Janus-faced account of human life, according to which every slice of a man's life has to be a pair of slices of two synchronous lives, mysteriously united by causal connections bridging the gap between mechanical and psychical causation. So I tried to show how in the case of lots of specific varieties of human acts, propensities, powers and states, the traditional pattern of explication collapsed and needed to be replaced by an explication of a quite different pattern.

I mention this strategic motif chiefly to bring out a general feature of conceptual enquiries, namely that the philosopher's task is never to investigate the *modus operandi* just of one concept by itself; the task is always to investigate the *modi operandi* of all the threads of a spider's web of interworking concepts. A problem about, say, the notion of *imagining* is *ipso facto* a problem about the notions of *perceiving, remembering, thinking, pretending, knowing, inventing, experimenting* and so on indefinitely. To fix the position of one concept is to fix its position *vis-à-vis* lots of others. Conceptual questions are inter-conceptual questions; if one concept is out of focus, all its associates are also out of focus.

Let us now try to get the 'feel' of two or three live specimens.

(1) Dispositions and acts

When I was a schoolboy I was taught that all active verbs signify actions; i.e. that what is true of active verbs like 'dig', 'walk' and 'build' is true of all active verbs. Patently this is false. *Sleeping, dying, neglecting, forgetting, resembling, undergoing* and *possessing* are not actions, although the verbs signifying these things are active verbs.

Now we employ for saying things about the mental life of people many active verbs which do signify acts of mind; and we are tempted to assume

that this is the function of all the active verbs that we employ in these contexts. Having correctly listed *calculating*, *pondering* and *recalling to mind* as mental acts or processes, we go on to list *believing*, *knowing*, *aspiring* and *detesting* also as acts or processes. If this listing were correct, then, given the statement that Socrates was occupied at a certain time in calculating or recalling something to mind, we could replace the participle 'calculating' or 'recalling to mind' by the participle 'knowing' or 'detesting'. But it is immediately apparent that these substitutions cannot be significantly made. We can say that Socrates knew, believed or detested something from, say, his twentieth birthday to the end of his days; but we could not say that at any particular moment he was occupied in knowing, believing or detesting. As Aristotle realised, *knowing*, *believing* and *detesting* have to be listed not as acts or processes but as 'hexeis'. Just as possessing a bicycle is not something that is happening or in process at a particular time, though the owner may remain in possession of the bicycle throughout a span of time, so *knowing* and *believing* are not incidents in a person's mental life, though they make an important difference, of quite another sort, to his mental life. Certainly I *acquire* a bicycle at a particular moment, and I *find out* or *become convinced* of something at a particular moment; but being in possession of something is remaining and not attaining; having and not getting.

There are, of course, lots of what I call 'dispositional' concepts which have nothing special to do with persons or, *a fortiori*, with their qualities of intellect and character. The flexibility of a piece of steel is a dispositional property which it possesses, perhaps, for years or for ever, though at few moments, if any, is it actually being bent or twisted or recoiling from having been bent or twisted. The habits into which a dog is trained may be kept for the rest of its life, though its particular acts of begging, say, which it does from habit, occur relatively infrequently and last for only a few seconds. But there is a special point in attending to those dispositional concepts which do apply specifically to the mental life of human beings, namely that if we inadvertently treat the active verb 'believe', say, as signifying an action, we are forced to regard the postulated acts of believing as peculiarly occult acts. For we never find other people or catch ourselves engaged in any such acts. Similarly, if the schoolboy is persuaded by his school-grammar that owning a bicycle is doing something, he is forced to suppose that owning a bicycle is an occult sort of doing, since he never meets anyone occupied in doing it.

It is a general mark of a dispositional concept as opposed to an activity-concept or a process-concept, that the time-qualifications which fit concepts of the one family will not fit concepts of the other. A man might have been calculating or running while the clock was striking twelve, but he could not have been engaged in knowing or believing or possessing a bicycle while the clock was striking twelve. Conversely, a man may have known something for the last twenty years, but he could not have been engaged in a particular task for the last twenty years. We can say of a sleeping man that he is a cigarette-smoker or that he believes that the earth is flat; although he is not now smoking a cigarette or now considering the shape of the earth.

Other qualifications also will fit concepts of the one family but not those of the other. A man may be doing something industriously or lethargically, fast or slowly, efficiently or inefficiently, continuously or intermittently. But none of these qualifications will fit his knowing, believing, aspiring, detesting or possessing. To resume an earlier metaphor, dispositional concepts and act-concepts are 'shaped' for different kinds of propositions. Where members of the one family will fit, members of the other will not fit. For subsequent problems, it becomes of first-rate importance to distinguish different kinds of dispositional concepts from one another. Skills are not of a piece with blind habits, and neither can be assimilated to tastes, to inclinations, to phobias, to inhibitions, to moral principles or to frailties. But for my present purpose it is enough to draw attention to the need to follow Aristotle in distinguishing the type of force that belongs to, e.g., the verb 'to calculate' from the type of force that belongs to, e.g., the verb 'to know'; and we need also methods of fixing their differences. A bare contemplation (if it could, *per impossible*, take place) of the Essences of *Knowledge* and of *Calculation* would get us nowhere. We require systematically to unfold the disparities between the functionings of these concepts in live discourse; to be able, e.g., to say why the gap in 'Socrates . . . fast but carelessly' can be filled by 'calculated' or 'dug' but not by 'knew' or 'possessed'. We shall then, incidentally, be out of danger of supposing, as epistemologists often have supposed, that knowing and believing are very peculiar processes, namely occult processes.

One further point about dispositions. Although to say that someone is a cigarette-smoker, is honest or has a good musical ear is not itself to report that he is at a particular moment doing something, still what is said of him is intimately connected with mentions of his particular actions. We learn

that a man is an habitual smoker from seeing him smoking on one occasion and then seeing him smoking on another occasion, and so on. We find out that he is honest by hearing him tell unpalatable truths on various particular occasions. Moreover, to know or believe that he has a good musical ear is, *inter alia*, to expect him to sing or play the correct notes on future occasions; to shudder when he hears the wrong notes; to applaud good music; and to switch off the radio when the music is bad. Potentialities, abilities and liabilities are potentialities to . . ., abilities to . . ., and liabilities to . . .; and what fill these gaps are references to actual momentary doings, reactings and abstainings. None the less a man who is asleep or at his office-desk can be truly described as being good at swimming, though he is not then engaged in swimming.

Now let us turn to consider some concepts of doing.

Here I want to draw your attention to an important, if somewhat subtle difference between two families of action-concepts. Consider what we are saying of a doctor (1) when we say that he has been treating an invalid and (2) when we say that he has cured him. At first sight we may suppose that these differ only, perhaps, as running differs from walking, or as drawing differs from scribbling. But the difference is more radical. When we say that the doctor cured the invalid, we are saying in one breath both that he treated the patient *and* that the patient was thereby restored to health. In a word the treatment was successful. Similarly the difference between my arguing with you and my convincing you is that the latter embodies the notion of my arguments having actually had the effect that they were meant to have. Winning a race differs in this way from running a race, hitting a target from shooting at the target, murdering from trying to murder, and purchasing an article from bargaining for it. This conceptual difference between trying to bring something about and succeeding can be shown in this way. Very often the attempt to bring something about fails just through bad luck or succeeds with good luck. A runner may win the race because he ran well or because his chief rival slipped in a patch of mud. So it makes sense to describe a success as lucky, or a failure as unlucky. But it would make no sense to describe the making of the attempt as due to good or to bad luck. In the sentence-skeleton 'Socrates was lucky enough (or unlucky enough) to . . .', the gap can be filled by a verb of success, or a verb of failure, but not by a verb of trying or undertaking. Conversely there are qualifications which fit concepts of trying or

undertaking which will not fit concepts of succeeding or failing. A man may search busily, systematically or intermittently; but we could not say that he *found* something busily, systematically or intermittently. The doctor may treat the patient carefully or carelessly, but he cannot cure him carefully or carelessly.

The present importance of this conceptual distinction is that in our accounts of, e.g., intellectual operations, we use concepts of both kinds, and can easily mystify ourselves if we suppose that a concept of the one sort is of the other sort. For example, the notions of *proving*, *establishing*, *discovering*, *solving*, *seeing* and *recollecting*, are all notions of success. It would be absurd to say that a thinker had solved a problem incorrectly, proved a theorem invalidly, recollected something that had not happened, or seen something that was not there. From the other family there are also scores of notions, like those of *pondering*, *enquiring*, *investigating*, *deliberating*, *listening* and so on. These are activities which certainly can be conducted in vain, pertinaciously, methodically and so on. They are what a person is at a time and for a time occupied in, as he cannot be occupied in solving, proving or seeing (as distinct from trying to solve, prove or see). If we treat the notion of *deducing* as if it belonged with *deliberating* or *examining*, we find ourselves confronted, apparently, with a mental activity mysteriously controlled by the laws of logic. For a deduction certainly is forbidden to be fallacious, as a cure is forbidden to be unsuccessful. Our theories of knowledge, inference and perception are, *ex officio*, concerned with, among others, concepts of intellectual achievement and failure; so a great deal depends upon our distinguishing the logical behaviour of verbs of trying from that of verbs of succeeding and failing.

(2) Imagination

Now I turn to a very different field. In a late chapter of my book I discussed a battery of concepts falling under the general heading of 'Imagination'. Here my chief bother was with the moderately specific notions of visual and auditory imagination. We visualise or 'see in our mind's eyes', faces, buildings and landscapes, and we 'hear' voices and tunes 'in our heads'.

It was important for me to discuss these special mental acts of imagining since we are all strongly tempted to think of the human mind as a sort of private chamber, and to think of the things that we visually and

auditorily imagine as, somehow, authentic occupants of this private chamber. *Imagining* then comes to be misconstrued as a special brand of *witnessing*, the objects of which happen to be internal and private to the witness. Sartre, in his *L'Imaginaire, psychologie phénoménologique de l'imagination* (1940), was partly concerned to attack this same conceptual misconstruction. There was another, connected conceptual mistake which I, like Sartre, tried to expose. Hume, and many others, have maintained that the difference between what is seen and what is visualised, between 'impressions' and 'ideas', was a difference in degree of intensity. So, presumably, very faint noises, such as barely heard whispers, would have to be auditory images or 'ideas'; and merely imagined shouts would have to be actually heard whispers. Which is absurd.

I shall not repeat the arguments by which Sartre and I exposed the absurdity of Hume's view or of the other view that imagining is witnessing things existing or occurring inside a private chamber. What is more interesting, at least to me, is that after these insidious conceptual misconstructions had been exposed, I was obliged to try to give the correct positive account, and in this conceptual search I got lost. I was, I think, on the right track in assimilating imaging, e.g. visualising, to the much more general notion of make-believe, about certain other varieties of which, like the notions of pretending and playing, I felt fairly clear. But when I found myself classifying visualising as 'make-believe seeing' I felt conceptual embarrassments, and these are always a sure sign that something has gone wrong. Part of these embarrassments derived from the fact that my previous treatment of visual perception proper had got stuck over the relations between the concept of seeing trees and stars, say, and that of having optical sense-impressions. This illustrates the way in which conceptual enquiries cannot be confined behind watertight bulkheads.

Through the lengthy stretch during which I floundered there did, however, run one idea which I still think is cardinal to the concept of imaging. It is this. A person at a concert may be listening to a piece of music that is strange to him, so that he is then and there trying to learn how it goes; but a person who goes over a tune in his head must already have learned and not yet forgotten how the tune goes; and more than this, not only must he already know how the tune goes, but he must be at the time *using* this knowledge; he must be actually *thinking* how it goes; and he must be thinking how it goes without the tune being actually played aloud to him or hummed aloud by him. He must be thinking how it goes, in its *absence*.

Nor do these 'musts' represent a psychological law. An act would not be one of going over a tune in one's head unless these conditions were fulfilled. Of this I feel fairly sure. But what stumps me is what more to say of this notion of *thinking how the tune goes*. For the man may say, even with surprise, 'it was almost as if I actually heard the notes'. The kind of 'thinking' that he was doing had a certain degree of vividness or lifelikeness which makes him want to liken his merely thought-of notes to heard notes, save for the crucial difference that the thought-of notes were *only* thought of, and not heard at all. He heard no notes; but he 'heard' them vividly. He was *non*-sensuously so alive to how they would have sounded, that it was almost as if they had been sounding in his ears. It is for this concept of the quasi-sensuousness or vividness of, e.g., auditorily imagined notes that I feel sure that I failed to fix the bearings.

(3) 'Cogito'

The last specimen of my phenomenology that I want to mention is this. There is, as has long been recognised, an important difference between certain first-person and the corresponding third-person pronouncements. If I declare of someone else that he is depressed, in pain or intending to travel, I may easily be wrong. But if I declare that I am depressed, in pain or intending to travel, then if I am not being insincere I must, it seems, be declaring something about which I could not be mistaken. I could not be wrong or even dubious about my present mood or my present intentions. This exemption from the possibility of uncertainty and error does not attach to my declarations of how I formerly felt or formerly intended, or to my declarations about my future moods or intentions. Nor does it attach to any diagnoses I may give of why I am depressed or in pain. Nor does it attach to any declarations in the present tense that I may make about the physiological state of any part of my body. I may, for example, be mistaken in thinking that I now have a high temperature.

It is present-tense, first-person declarations or 'avowals' of mental states and acts that seem to be exempt from any possibility of doubt or mistake.

At first sight we are inclined to follow Descartes in saying that such 'avowals' express the highest level of knowledge and certainty. No other truth could be better known to me than the truth that I now have a pain or that I now feel depressed. At the top of the list of the things that I not merely claim to know, but do really know and cannot but know

are the things that at any given moment I may avow to others or to myself.

But there are some puzzling features in this notion of avowals being expressions of knowledge. Ordinarily when we grade statements on a scale of approximations towards certainty we use such adverbs as 'probably', 'presumably', 'unquestionably', 'patently', 'self-evidently'. But none of these, not even the highest of them can be used to qualify 'I am in pain'. Nor could we say 'I have proved or established or decided, beyond question that I am in pain' or 'I have the best of reasons for thinking that I am in pain'.

Even the verb 'to know' does not fit. To know something is to have discovered or learned something and not to have forgotten it. But 'I have found out that I am depressed' is absurd—where 'I have found out that she is depressed' and 'She has found out that I am depressed' are perfectly in order.

An avowal of depression seems to come, so to speak, directly out of the depression itself and not out of the settlement, however conclusive, of any questions about that depression. In avowing my depression I speak not as an angelically well-situated reporter on my depression, but simply as a depressed person.

In my book I half-assimilated avowals to the yawns which manifest the sleepiness of which they are signs or to the oaths by which the angry man vents his rage and shows others how angry he is. As an oath is not a report of anger, so, I was inclined to say, an avowal of depression is not a report of depression but an ejaculation of depression. It is exempt from uncertainty only for the reason that an ejaculation or a complaint cannot be qualified by 'perhaps' or 'indubitably'. But it is clear that this assimilation of avowals to ejaculations or complaints will not do. An avowal may be a reply to a question; it may even be meant to provide a doctor or an oculist with the information that he requires for his diagnosis. If I say 'I have a shooting pain in my eyes', while I may be complaining, I am also reporting. Avowals seem then to be like reports, and yet not to be reports of anything discovered or established, to merit being received as incontestable and yet not to issue from any kind of certitude on the part of their authors, or of course of incertitude either. In one way avowals are completely authoritative, and yet there is nothing about which their authors are special authorities. I am not an expert about my pain, nor an angelically well-situated observer of it; I am merely a person who is in

pain and is saying so. You may conjecture, infer, believe or know that I am in pain; but I just have the pain—and the words for it. My avowals may be, for you, the best possible reasons for concluding that I am in pain; but they are not *my* reasons. I do not need reasons. I do not conclude.

Here, then, we have another puzzle or trouble-spot in the philosophy of mind. These first-person, present-tense declarations refuse to behave either like ebullitions of mental states or like testable reports of ordinary matters of fact. Above all they refuse to behave like infinitely well-certified reports of matters of solipsistic fact. Their conceptual location is not yet fixed; so the locations of the concepts of consciousness and self-consciousness remain unfixed; so what is conveyed by 'I', 'you' and 'he' remains unfixed. But perhaps we are clearer than we were about the sort of position-fixing that we desiderate.

12

HEIDEGGER'S 'SEIN UND ZEIT'

Reprinted from 'Mind', vol. XXXVIII, 1928

This is a very difficult and important work, which marks a big advance in the application of the 'Phenomenological Method'—though I may say at once that I suspect that this advance is an advance towards disaster.

Heidegger is probably the most original and powerful of Husserl's pupils; and this book, which is dedicated to Husserl and first appeared in his *Jahrbuch für Philosophie und phänomenologische Forschung*, Vol. VIII, presupposes a knowledge of the published works and refers explicitly to more recent teachings and writings, as yet unpublished, of that difficult author. Now if *Sein und Zeit* were nothing more—and it is more—than a re-exposition of the ideas of Heidegger's teacher, it would be hard enough for, anyhow, English readers to understand, since, save in chance quotations, not a word of Husserl has yet been translated and no adequate exposition in English of the cardinal positions of Phenomenology or even of the logical, epistemological and psychological doctrines contained in the *Logische Untersuchungen* (1900–1 and re-edited with modifications 1913) has yet been given.[1] Moreover, to add to our difficulties, until recently there has been an additional historical obstacle to the understanding of Husserl, namely that no sure estimate could be formed of the nature and extent of the influence

[1] But see Boyce Gibson's article in *Mind*, 1922; references and quotations in Bosanquet's latest writings; and Linke's article in *The Monist*, 1926.

upon Husserl of Franz Brentano, though it was known that this was great; as, until Kraus and Kastil devoted themselves to the task, most of the psychological and philosophical teaching of Brentano remained unpublished and inaccessible. And finally the 'logical Realism' of Bernard Bolzano (1781–1848) which, with that of Frege, was so largely formative of Husserl's logical theories, must for the present remain unexplored country for most researchers in this field; since the first and only complete edition of his most important *Wissenschaftslehre* (1837) is unprocurable, and even Höfler's re-edition in 1913 of the first two of the four books is now out of print.

It is, however, now becoming possible to see in some sort of perspective what were the beginnings and what have been the stages in the growth of Phenomenology, and a short sketch of its genesis must preface my attempt to state even the programme and method of Heidegger—many of his conclusions for lack of comprehension I must abandon unexpounded.

Brentano was, like Bradley, a step-son of the 'Association philosophy'; for him, as for Bradley, the problems are largely set by Locke, Berkeley, Hume and the two Mills, as well as by Herbart; and he, like Bradley, makes a partial escape from the conclusions of Hume by a theory of Judgement which denies the (for Locke) basic position that judging is a *coupling* or *having-together* two 'ideas'; instead, he asserts, a judgement contains one 'idea'-element *plus* another element irreducible to 'idea', namely the element of acceptance or rejection, affirmation or negation. Unlike Bradley's, Brentano's metaphysic was Aristotelian and Thomist rather than Hegelian, and, unlike him again, avoiding any attempt to *define* Judgement (e.g. in terms of Subject and Predicate) he contents himself with declaring judgement to be an ultimate, irreducible and indefinable psychic fact, differing qualitatively from the primitive psychic fact of 'having an idea' (*Vorstellung*) just in the presence to the former of the extra element of 'accepting or rejecting'.

He went on to find a third class of psychic facts, equally irreducible to 'ideas' or even to Judgements, namely Feelings of 'liking and disliking' or 'wanting and aversion'.

He thus broke with the English school by rejecting 'Association' as the one principle and 'Ideas' as the one element of psychic complexes, setting up instead a division of three irreducible types—capable, of course, of various inter-combinations—of psychic facts or 'phenomena'. This division was accepted as basic, anyhow at first, by all his pupils, and in particular by both Meinong and Husserl; and it has led them, with

others, into profound and important investigations in the psychology and philosophy of thinking.

That, however, despite the improvements that he introduced, Brentano was fundamentally a member of the school of Locke, is shown by the fact that for him 'ideas' (*Vorstellungen*) are, if no longer the whole, yet still the substrate of all conscious experience; for while an act of 'having an idea' (*vorstellen*) may occur alone, an act of judging or feeling must always be founded in one of 'having an idea'. To judge is to have an idea and to do something with it; to feel is to have an idea and to take up an attitude towards it. We, made wise by the event, may already wonder whether such premisses will not in due course lead to a subjectivist or agnostic theory of knowledge.

There is a character shared by acts of *Vorstellung*, Judgement and Feeling in virtue of which they may all be classified as *psychical* as opposed to *physical* facts, namely the necessary presence to all of them of an 'immanent object' or 'content'.

There is no 'having an idea' that is not having an idea of something; no affirming that is not affirming something, no wanting that is not wanting something. This relation of a psychic act to its content or immanent object is named by Brentano, in loan from the schoolmen, the 'intentional' relation; and the content or immanent object that the act is of is the 'intentional' object. 'Intentionality' is the essential character of consciousness, and is what differentiates the psychical from the physical (a 'res cogitans' from a 'res extensa').

Two important things must be noticed about intentionality (which is, of course, ultimate and indefinable): (1) It has nothing to do with 'intending' in our sense of intending or purposing to do: its affinities are rather with the doctrine of 'first, and second intentions'. Heidegger in an earlier work on Duns Scotus showed that his use of 'intentio' was closely akin to Husserl's 'Meaning' (*Bedeutung*). (2) The 'intentional object' of an act of consciousness is not an extra-mental reality, but immanent in the consciousness of which it is the 'content'. Its status is psychical, and it exists, if it exists at all, when the act that 'has' it is in existence. Its being is to be 'accusative' to an act of consciousness.

That is to say, Brentano's theory of intentionality is not to be construed as a premiss to or conclusion from a Realist theory of knowledge but only as a clearing up of an ambiguity latent in the use of such terms as Idea, Judgement and Feeling.

However, Brentano is not a Solipsist; so the further distinction has to be made, between the content or intentional object of a psychic act, and the real, extra-mental object, e.g. a 'thing' in space and time. All psychic acts have intentional objects; only some have also real objects. For instance, the 'idea' of a Golden Mountain has a content but no object; that of Mount Everest has both. Thus, too, the idea of 'the composer of the *Iliad*' and that of 'the composer of the *Odyssey*' have different contents, but (perhaps) the same real object.

As there are three ultimate types of psychic acts, so there are three ultimate types of intentionality; though those of Judging and Feeling are founded in that of *Vorstellung*.

The next important legacy of Brentano, and one which was a necessary condition and almost the sufficient condition for the birth of Phenomenology, was his theory of the absolute Self-Evidence (*Evidenz*) of 'inner perception' or the perception of our present psychic acts and states *with their intentional objects*.

Harking back to Descartes's Method of Doubt and his 'Cogito ergo sum', he asserts that while our judgements of external reality are contingent and problematic (since they are founded in 'ideas' the contents of which are different from and ultimately incomparable with their extra-mental real objects), our judgements of what is immanent in the consciousness of the judger are self-ratifying, since there is *identity* between the content and the object of the idea which, *qua* judging, we are asserting.

Thus I may doubt whether I am really seeing a ship, but I cannot doubt that what I see *really* looks to me as it *seems*, or that I am really believing it to be the look of a ship; I may doubt whether sardines are good food, but I cannot doubt that I like them.

He gives to the objects of 'inner perception' the general title of 'Psychic Phenomena' or the 'Phenomena of consciousness', using the term 'phenomenon' (it is important to note, to appreciate the meaning of 'Phenomenology') *not* in the sense of Kant but in that of Comte; i.e. to denote not an 'appearance' as *opposed* to a reality, but a *reality that appears*, i.e. manifests itself. So a 'psychic phenomenon' is simply a particular manifestation of consciousness. Often indeed, the term means little more than 'fact' in ordinary parlance.

We have then in inner perception of our own psychic phenomena a fount of self-evident judgements which are both affirmative and existential; and we have no other such fount (though we may make self-evident

negative judgements of the form 'no X is Y' or 'there is no X that is Y' simply from logical insight).

So all positive knowledge either is, or is founded in 'inner perception', and the science of the objects of inner perception acquires accordingly a priority over all other sciences.

Now the science of the objects of inner perception falls for Brentano into two major divisions. At first only in his practice but later also explicitly in his theory, he divides Psychology into 'genetic' and 'descriptive' psychology. Under the former he classed all forms of inductive, experimental, statistical, anthropological, evolutionary and pathological or physiological psychology; but these all presuppose the findings of 'descriptive' psychology, the function of which it is to analyse and describe the general types of psychic phenomena or the general modes of intentionality which the particular data of 'genetic' psychology exemplify. The method of 'descriptive psychology' is intuitive, moving not by inference but by direct inspection of individual instances of psychic phenomena in which the universal type-structure can be read. We are told that Brentano, reserving the title 'psychology' for the inductive or 'genetic' branch, came later to call the descriptive science of psychic phenomena by the name 'Psycho-gnosis'. Kraus, more recently, has coined for it the name 'Phenomenognosis': but the title that will stick is that adopted by Husserl and his school—'Phenomenology'. It would have been more accurate, if less convenient, to call it 'Psycho-phenomenology' since its subject-matter is limited to psychic phenomena; but as, in the end, the conclusion is reached that *only* such entities as are psychic are self-manifesting, i.e. are proper 'phenomena', this precision would perhaps be extravagant.

These are, I think, the most important of the teachings of Brentano for the history of Phenomenology; they are not, however, his *only*, and in some respects they are not his final, teachings. For, alarmed by the erections made upon his foundations by his two leading pupils Husserl and Meinong, he came later to withdraw or re-fashion some of his theories. These later theories, however, need not be expounded here.

Husserl began his career as a theoretical psychologist of the school of Brentano; and a native interest in the theory of mathematics led to his first book *The Philosophy of Arithmetic* in which he applies the principles of Brentano to the special field of arithmetical 'ideas'. Hence, like Meinong, he was driven back to the general problem of the nature, status and origin

of 'abstract ideas', i.e. concepts and ideas of relations; and the early writings of both are accordingly largely composed of criticisms, amazingly acute and profound, of the treatment of these problems by the English Locke–Spencer school. And it is perhaps no coincidence that Brentano who claimed to be the pupil of Aristotle and the Schoolmen should be the teacher of pupils who re-affirmed the independent reality of 'entia rationis' and found in our thinking elements that were not 'sensations' or echoes of 'sensations'.

Husserl in particular came then to see the domain of the logical as no mere province in the domain of the psychological, and in the First Part of his *Logische Untersuchungen* he attacks root and branch the fallacy of 'psychologism', of which at that date almost all logicians were victims, the fallacy, namely, that the objects of Logic, universals, Facts, implications, relations, types, wholes, etc., are simply varieties of mental states, processes and dispositions. His sustained and masterly demonstration of the self-ruinous character of all such 'psychologistic' theories and of the necessity of a 'pure' and independent science of Logic, to which parts of the Second Part of the *Logische Untersuchungen* are valuable contributions, have been of radical importance for German philosophy and psychology in the last quarter of a century.

But he had other fish to fry than merely to elaborate a 'Platonic' logical Realism, and though many would have preferred him to work along the lines of Bolzano and Frege in the direction of a pure Formal Ontology, like the *Gegenstandstheorie* of Meinong, he had no intention of abandoning his first love, the study of the phenomena of consciousness. Emancipation from 'psychologism' did not involve desertion of the task of analysing the types of 'intentional experiences': and clear ideas about the *objects* of knowing and thinking were an aid and not a hindrance to his study of what knowing and thinking in essence are.

Especially does he devote himself to the complex problem or cluster of problems of the nature and status of Meaning. For this general and even over-catholic title covers both the 'terms' and 'propositions' (i.e. roughly, the word meanings and sentence meanings) with which logic has to do and the 'ideas' or 'conceptions' and 'judgements' which are the objects of the psychology or Phenomenology of Thought. More, the theory of mathematics necessitates an understanding of what symbols and symbol meanings are; metaphysics must have or give an account of the sort of being possessed by 'concepts', 'facts' and 'propositions' (or Meinong's

'objectives'); the philosophy of language and of grammar pivot on the idea of 'expression', and these are all problems of 'Meaning'. And lastly the characterisation of all conscious acts as 'intentional experiences', i.e. experiences in the essence of which it is that they are *of* something other than themselves, soon led to the adoption of the noun 'Meaning' to denote the 'intentional object' of a psychic act, and of the verb 'to mean' to denote the intending of its immanent object by such an act.

It is, then, in the first instance the Phenomenology of those psychic acts that have *logical* Meanings, i.e. of acts of thinking, that Husserl prosecutes; but concurrently he is developing the general theory of Phenomenology and the general theory of its subject-matter, the intentionality or meaningfulness of consciousness in general. And this general theory we may now sketch. Phenomenology is for Husserl the science of the 'phenomena of consciousness' (a phrase of Brentano's which Husserl for good reasons came to relinquish) or of 'intentional experiences'. But it is not a 'matter-of-fact' science: it does not deal with actual instances, in the sense that it first records and explores these and then makes inductive generalisations from them. Rather it is a science of Essences; it is the science of the character that any experience must have to be a case of doubting (say) or questioning or fancying or inferring. Its subject-matter is the type or type-structure of intentional experiences as discerned *intuitively* in some real or imaginary exemplary instance. In a word its subject-matter is Essences and not individuals and its method is by 'exemplary intuition': so that it stands to empirical psychology as geometry stands to geography.[2]

That there *are* Essences and that we can know them has been already established in the more purely logical parts of the *Logische Untersuchungen*.

Now as Phenomenology is the 'eidetic' science of intentional experiences, as such, it covers with its net in a certain sense *everything*. For whatever in any sense *is*, be it an existent or a subsistent, a fancy, a relation, the number 7, a hope, a piece of nonsense, the Equator, etc.; in a word, anything that could conceivably be named or thought about is potentially *for* me; i.e. it is potentially the objective correlate or intentional object of some or other act of my consciousness. I may know it or wonder about it

[2] A good statement in English of what are in fact the subject-matter, method and relations with empirical psychology of Phenomenology is given—of course unwittingly—by Cook Wilson, *Statement and Inference*, vol. I, p. 328, and the last sentence of §119 on p. 277. And his analyses, e.g., of Opinion, Conviction and Belief are admirable applications of the 'Phenomenological Method'.

or entertain it or be angry with it and so on, and it is therefore actually or potentially the 'accusative' (I borrow the metaphor from grammar, as we have no separate rendering for '*Gegenstand*' as opposed to '*Objekt*') of an intentional experience. And the sort of intentionality that makes my *Erlebnis* what it is, is in its specific detail as in its generic structure something the analyis of which belongs to Phenomenology. This leads to important and (I think) dangerous consequences; for the science of Phenomenology is given a primacy over all other sciences, and it, itself presupposition-less, is supposed to be sovereign over presuppositions which all other sciences must make.

For already in his *Logische Untersuchungen* Husserl, on the basis of what I regard as a serious error in his theory of Meaning (derived, I suspect, from Brentano's founding of Judgement and Knowledge in *Vorstellung*), had erected a theory of knowledge or self-evident judgement according to which such objects of knowledge as are not experiences 'enjoyed' by the knower of them are tissues of Meanings, which Meanings are the *gift* of consciousness; so that consciousness is *constitutive* of all objects that are (or pretend to be) transcendent. This culminates in a doctrine explicitly formulated in his 'Ideen zu einer reinen Phänomenologie', which reminds us strongly of Kant or Green, that 'pure consciousness' is the only self-subsistent reality and the absolute *prius*. And he speaks accordingly of all objects of psychic acts, *including all objects of knowledge*, as 'correlates of consciousness'—things the being of which is to be 'accusative' to actual or possible intentional experiences.

There is thus a progressive trend visible in the philosophy of Husserl and his followers towards a rarefied Subjective Idealism or even Solipsism, a trend which, in my view, is not necessitated by the idea of Phenomenology, which I regard as good, but only by a particular elaboration of a part of a special theory of Meaning which is, if I am not mistaken, an evil legacy from the Locke–Brentano hypothesis of the existence of 'ideas'—certain mental entities out of which knowledge is somehow composed, though they are neither the objects known nor yet our acts of getting-to-know, but representatives between the former and the latter.

This very sketchy account of a few of the threads in the philosophy of Husserl—I can give here no exposition of the many other elements in it which I believe to be of really notable importance—must serve as a preface to Heidegger.

Heidegger's only previous published book was a little work on Duns

Scotus whose doctrine of the Categories, Intentionality and Meaning he expounds clearly, comparing them *en route* with kindred views of Husserl.

In *Sein und Zeit* however, he breaks new ground and in some 440 large pages he builds up what he himself only claims to be the threshold to the solution of a problem vastly more profound and radical than any that Husserl has yet formulated. Moreover, in the course of the book Heidegger sets himself to the construction of a new philosophical terminology, especially designed to denote unambiguously the basic categories of Meaning which he is trying to explicate.

Phenomenology must be presupposition-less; that is to say, phenomenological interpretations or analyses must take for granted no theories or observations made in a state of (phenomenological) naïveté. This is common ground. But in fact—so Heidegger thinks—previous phenomenologists had failed to disembarrass themselves of a weighty inheritance of presuppositions, the presence of which either cramps or vitiates their results. For instance, the historical genesis of Phenomenology from psychology, the survival in that psychology of the simple Mind-Matter dualism of Descartes, as well as the 'chemical' theory of atomic ideas, states and dispositions, the universal domination of Platonic and Aristotelian categories over all contemporary philosophical and psychological thinking, have stood in the way of the strict application of the phenomenological method; with the issue that even the most radical of its exponents have been tackling, with tools that were not their own, objects that they could only see with a squint.

It is no longer, or rather it is not yet, the time for Phenomenology to analyse the types of psychic acts and their interconnections, to examine the relation of 'act' to 'content' and of these to 'real physical things' and 'the world'; for the original isolation of such things as types, psychic acts, act-contents, physical things and the world, was one inherited from naïve predecessors and not *found* by Phenomenology.

The most fundamental presuppositions are ontological presuppositions; and it is to this field that Phenomenology must go, deliberately postponing the study of the twigs until it has completed its examination of the root. And the root is Being (*Sein*). The root problem of Phenomenology is the Meaning of Being—not in the sense that a *definition* is sought for it, for that would be a nonsensical demand, but that an insight of a new—phenomenological—sort is wanted, in possessing which we shall know 'with a difference' something which, of course, we must

understand or know 'in a way' already. And by 'Being' is meant not this or that entity of which we can say that it is or that it is something, but the universal which these exemplify.

Now Husserl, though he reached the point of saying that *Sein* is nothing else than the Correlate of *Bewusstsein*, i.e. Being is just what Consciousness has as its 'accusative', had never quite emancipated himself from the Cartesian point of view that Consciousness and Being are *vis-à-vis* to one another in such a way that in studying Consciousness we are studying something on the outside of which and transcending which lies a region of absolute Reality.

And in this frame of mind he could *separate* the spheres of Phenomenology and Ontology by saying that the former is the science of Consciousness, the latter the science of—something else.

But Heidegger is critical of this naïve assumption; and Phenomenology must, he urges, so far from accepting the alleged cleavage between Consciousness and Being, select as its first task of all the analysis and description of that most primitive level of Experience in which is generated *for us* that seeming polar opposition. Our attitude of regarding Being as the opposite of Consciousness is itself one of the intentional experiences, and perhaps the most important of the intentional experiences that Phenomenology must examine.

In this way Heidegger turns the tables on the objection that a more orthodox phenomenologist would be certain to raise, namely, that Phenomenology, being by definition the science of consciousness, can only take Being into its province on the illegitimate assumption that Being is an *Erlebnis* or a component of an *Erlebnis*.

Next, as well the Husserlian as the Kantian or Cartesian accounts of Thought or Consciousness are stated in terms of the ontological categories of Plato and Aristotle. But as these categories were distilled out of a natural and naïve (i.e. pre-phenomenological) attitude towards the world and ourselves, they must be not indeed rejected but put, so to speak, in inverted commas; they must be accounted for with the naïve attitude from which they sprang. They cannot supply the terms in which we are to unpack the Meanings for which we are looking, for they are at least under suspicion of being metaphorical. Phenomenology is Hermeneutic and the categories which are the untested framework of our everyday world are among its primary *interpretanda*.

As a practical consequence of this view Heidegger imposes on himself

the hard task of coining, and on us the alarming task of understanding, a complete new vocabulary of terms—mostly many-barrelled compounds of everyday 'nursery' words and phrases—made to denote roots and stems of Meaning more primitive than those in which Plato, Aristotle and subsequent scientists and philosophers have so taught us to talk and think, that we, by the strong force of habit, have come to regard as ultimate and pivotal ideas which are in fact composite and derivative. Heidegger's ontological Phenomenology is to turn our eyes back again to contemplate with a new method and a new clarity the springs of Meaning from which flow our most familiar and most 'homely' conceptions and classifications. The principle on which he seems to be designing his new terminology is, I should judge, the hypothesis that certain 'nursery' words and phrases have a primitiveness and freedom from sophistication which makes them more nearly adequate expressions of really primitive Meanings than the technical terms which science and philosophy in the course of a long development have established.

The hypothesis seems to me a perilous one, for it is at least arguable that it is here, and not in the language of the village and the nursery, that mankind has made a partial escape from metaphor.

In *Sein und Zeit* Heidegger does not make the assault upon his final objective; he opens the campaign with a preliminary occupation of a terrain that is nearer home. Indeed it is of the essence of his starting-point that it is as near home as possible, for, before trying to interpret what is the Being which any entity as such has, he tries to examine what sort of Being *we* have who are making the examination.

Like Brentano and Husserl he goes back to Descartes's 'Cogito ergo sum' and enquires more deeply than Descartes could do not merely what is a 'cogitatio' or what can be done by or what can happen to a 'res cogitans', but what the 'I' is and must be for such actions and passions to be possible. The threshold to the Hermeneutic of 'Esse' is the Hermeneutic of 'Sum'; and if he can find out what it ultimately is to be an experiencer having experiences, a door, perhaps the only door, will be open for the next search after the innermost Meaning of Being.

The title that Heidegger appropriates for an 'I' who thinks and in particular is asking the questions, using the methods and appreciating the answers that I am now doing, is '*Dasein*' (one of numerous loans from established *philosophical* terminology which, however necessary, are certainly confusing). The business, then, of the present work is the 'Hermeneutic'

or 'Analytic' of '*Dasein*'; and as my being is not a timeless subsistence but a being-myself through a continuum of 'nows', the special problem of the work as indicated in the title is to analyse the intrinsic *temporality* of my being.

Perhaps also Heidegger's interest in the way in which time enters into conscious experience was stimulated by some lectures that Husserl was giving, in 1905 and later, on the inward experience of time. These have just been edited and published by Heidegger.

Now the most fundamental and 'primitive' moment of a '*Dasein*'s' being is 'being-in-the-world'—being in it not as a chair is in a room or a cow in a field but as having it or being through and through occupied with it and by it. The world that I am in in this sense is all that it means to me; it is what makes me an experiencer of experiences. 'Being-in-the-world' for a '*Dasein*' is just the tissue of its attitudes, interests and utilisations. In a word, the world that I am 'in' is simply the sum of what I am *about*. The distinction between theory and practice, or thought and will, between thinking-about and doing-about is derivative from the primitive mode of a '*Dasein*'s' being—namely 'being-about . . .' (*besorgen*). Nor is it a mere chance attribute of a '*Dasein*' that it has this character of 'being-about . . .'. Rather it is the essence of its being what it is, to 'be about . . .'. And so, as the world, namely what I am about, belongs intrinsically to what I am, the pretended Subject-Object dualism is a pure fiction imported from the naturalistic attempt to see the relation between me and my world as akin to a relation between one fragment and another fragment of my world.

One of the derivative ways of 'being-about . . .' is 'thinking-about . . .': and of this one of the derivative modes is knowing; and that this is derivative and not primitive is shown by the fact that before knowing I must 'wonder about . . .' and before 'wondering about . . .' I must be 'interested in . . .' or 'concerned about . . .' which in the end turns out to be close to the most primitive mode of 'being-about . . .' and also of 'being-an-I' that there is.

Now while everything that I am-in-the-world-with has the character of being something that I am-about, this is not yet enough to characterise what we ordinarily term 'Things'. The Meaning of 'Thing' is not primitive but derived, and before the world that I 'have' is stocked with 'Things' it is stocked with *instruments* or *tools*, i.e. what I can 'work-*with*' in the performance of some task for some end. Later comes the conception of a 'Thing', namely what can't or needn't be worked with: the conception of 'Thing'

is derived from the conceptions of 'unemployed' and 'instrument': so the mode of 'being-about . . .' which is *using* is primitive to the modes of 'being-about' which are knowing, classifying and naming 'Things'.

(I may here interject that Heidegger seems to be confusing what is anthropologically primitive with what is logically primitive. It is perhaps a fact of human nature that I begin by being interested in things for what I can or can't do with them and only later do I want to know as a scientist what they are. But the former attitude involves equally with the latter the knowledge of things as having attributes and relations, though in infancy I restrict my interest to a few of those attributes and relations, namely those which bear on my business.

(I must leave till later my further and fundamental objection that all these so-called 'primitive' attitudes or ways of 'being-an-I' really involve *knowledge*, which knowledge necessitates universals and categories upon which the Analysis of *Dasein* throws—and can throw—no light at all.)

It is important to note that, in all the ways of being-about, being-in, being-with and being-without that characterise a '*Dasein*', the *Dasein* has some sort of *understanding of* what it is being or doing. Not that it has scientific, 'thematic' *knowledge*—for this is a late product—but the moods, tenses and inflections of its being-itself are 'illuminated' or 'transparent' to itself. If it were not so the Analysis of *Dasein* would have no self-evidence, and so would not be the proper approach to our ultimate problem.

The spatiality of the world is derived from such primitive attitudes as having-to-hand-convenient-for-using or not-having-to-hand; but apart from mentioning the similarity of Heidegger's treatment of Space and later of Time with that of Bergson and some anthropologistic pragmatists, I must pass quickly over this and several other important sections in which the constituents and structure of the world we 'have' are derived or analysed.

What in the end *is* a *Dasein*? What does 'sum' in 'Cogito ergo sum' ultimately denote? Behind the question 'What are the root types of my behaviour, my attitudes, my actions and my passions?' lies the question 'What is it to *be* an I (*Dasein*)?'

The answer rings at first strangely. 'Dasein ist Sorge.' What I am is Concern or Care (*cura*). Willing, wishing, wondering, reflecting, knowing, doing, with their 'accusatives', all are ways of 'caring' or 'caring about' or 'caring for'.

Heidegger tells us that he came to this conception of Care as the

absolutely primitive Being that an 'I' as such has, through studying the Augustinian and other Christian philosophies of human nature; but I surmise, too, that there are legacies in it of the characterisation by Brentano and Husserl of Consciousness as what has intentionality. For by 'Care' Heidegger does not mean any particular emotion of fearing, or being anxious, or wishing, or any particular act of striving, or any particular inclination or impulse, but the primitive sort of being in which all such emotions and acts and states are founded; for they are all particular ways of 'caring'.

Next (what bears on the special problem of the *temporal* nature of an 'I'), what I am is not exhausted by what I have done and become up to date; rather it is of the essence of my being what I am that there are potentialities in me; I *can* be what I am not yet; and what I can be belongs just as intrinsically to my being as what I am already, i.e. that of my being which I have already realised. Care is accordingly as essentially care about what I might be as care about what I already am. This leads to an analysis of what my Being as a *whole* is, i.e. the whole structure of which what I am up to date and what I might be are integral moments. Now one of the characteristics of my whole being is that *qua* Life it terminates in Death—*terminates* in Death without finding its *completion* in it. So we have to investigate what sort of a whole it is which has both termination in Death and a completion (never fully realised) in being all that it has the potentiality of being. In this whole belong conscience—the certainty of what I might be—and the sense of sin or guilt—the certainty that I am not what I might have been. (Here Heidegger is reviving important Augustinian theses which lead one to wonder if the second part of this work will not be a sort of Eckhart philosophy in phenomenological clothing.)

But here, for the reviewer at any rate, the fog becomes too thick; and the results of the analyses of our intrinsic temporality, of the several concepts of time, historical becoming, history and the criticisms of the theories of Dilthey and Hegel must go unexpounded.

A word about the *method* of Phenomenology. It is its boast that it does not make and does not presuppose 'logical constructions' or 'theories' or 'systems'. 'Phenomenology makes no hypotheses.' It does not move by making deductions from axioms or inductions from observed and recorded facts. Its method is that of 'exemplary intuition', i.e. the inspection of individual examples *qua* exemplifications of Essences or Types—this of course in the region of consciousness. We intuit in this or that

feeling of anger, act of choice or imagination, that essential character lacking which the particular examined would be something other than a case of being angry, choosing or imagining.

So here Heidegger claims simply to be revealing, unpacking or interpreting the essence of what we do and are. Accordingly, his sentences, which on first reading seem to be mere dogmatic assertions, have to be read as expressions of a Hermeneutic analysis to understand which is to see that it is true. He is simply telling us explicitly what we must have known 'in our bones' all the time. Similarly, e.g., Cook Wilson does not tell us anything *new* about Conception, Opinion or Belief; he is telling us something which we, when told, recognise that we knew implicitly from the start.

The dangers lie in the undue extension of this method; if, for instance, our interpreter has, without realising it, a theory of knowledge, or a metaphysical system, he may easily come to interpolate into the interpretations that he gives something that could never have been intuited in the exemplary instance he is examining—since, even if it be true, yet it was never in the Essence of that example. Or else, under the same influence, he may omit to notice an integral element in that Essence. Thus I suspect that certain theories of human nature have been interpolated into Heidegger's analyses of it; and on the other side the basic place of knowing in being-in-the-world or in any experiencing of a Meaning has been forgotten. And so an anthropologistic Metaphysic seems to have been read out of our everyday experience, of which both the positive element of Humanism and the negative sceptical element of Relativism and Solipsism appear to be derived from views interpolated into and not won by the Phenomenological Method.

It remains to make a few tentative comments and criticisms upon the general idea, and especially the method, of this approach to the Hermeneutic of Being via the Hermeneutic of 'being-an-I' ('*Dasein*').

(1) In the first place it is taken for self-evident that some sort of *understanding* what I do and am belongs essentially to my doing what I do and being what I am. This doctrine is, I suppose, the same as that of Brentano and Husserl that in 'inner' or 'immanent perception' I have a source of self-evident positive judgements and that I have no other such source; so that any degree of '*Evidenz*' in any positive judgement that I make must either be or be grounded in the self-evidence of 'inner perception'. But while there is no objection to the thesis that I can know my own

experiences and the 'I' who has them, the assertion that this is all that I can know, or that if I can know anything else I can only know it if I first know my experiences and my 'I', is far from self-evident; indeed it seems to me to contradict itself. At any rate it presupposes a theory of knowledge and a metaphysic, and so a Phenomenology based on this theory is not presupposition-less. However it might still be the case that the analysis of what it is to be 'an I' and to experience my experiences was the best, though not the only, approach to the ultimate analysis of what Being as such is. 'I' might be the most accessible or the most transparent example of Being.

(2) Some would quarrel with the original assumption that there *is* a problem about the Meaning of Being. But as the (perhaps departmental) question of the relation between Being *qua* timeless 'subsistence' and existing *qua* existing in the world of time and space seems to me a real one, I do not take up this cudgel.

(3) But there is what I regard as a vital ambiguity present in that expanded theory of Phenomenology which makes it the logical '*prius*' of not only psychology but logic, metaphysics and the mathematical and natural sciences. Accepting Brentano's improvement on the Locke–Hume theory of 'ideas' according to which the distinction was made between the act and the content (or immanent object) of a *Vorstellung*, the phenomenologists have very properly generalised the principle and find in every phenomenon of consciousness, i.e. in every intentional act or experience an act side and a content or Meaning side. Then, looking at the world, they see that every thing or event, every relation or universal, every conceivable 'It' can be regarded as the objective correlate or content to an appropriate act of consciousness—knowing perhaps, or surmising, or being vexed at, or wanting, or being interested in.

And as it is the proper business of phenomenology to analyse states and acts of consciousness, everything is in this way drawn into its net; for anything and everything is or has a Meaning-for-me, and the meaning of the act or acts in which it has its Meaning-for-me is the proper subject-matter of the science of intentionality.

But while it is a dangerous metaphor to speak of acts having 'meanings' or of things as being the 'meanings of acts', it is a fatal error to speak of a thing known as the correlate of a knowing-act as if that implied that we could get to the heart of the thing by analysing our experience of knowing it. A twin is a correlate to a twin but operations upon the one are at most

operations upon the other one's twin, not operations upon the other one himself.

And this leads to dangerous results in the practice of the phenomenological method; it leads to them here in *Sein und Zeit*. For the presence of *knowledge* of some reality (which is surely present in any and every conscious experience) though it is not explicitly recognised is surreptitiously imported as well into such terms as 'understanding' and 'illumination' as into the countless nursery-terms which Heidegger is trying to build up into a new philosophical vocabulary.

For instance, the general characterisation of our conscious being as a 'being-in-the-world' surely implies that *underlying* our other reactions and attitudes there is *knowledge*. We 'have' or are 'in-the-world' only if we know that at least one 'something' exists. Similarly the attempt to derive our knowledge of 'things' from our practical attitude towards tools breaks down; for to use a tool involves knowledge of what it is, what can be done with it and what wants doing.

And if we like to call things that we know 'correlates of acts of knowing', we must at least recognise that the analysis of what those things are is not in the least degree forwarded by an analysis of our acts of knowing them, but only by getting to know still more about the things themselves.

This ambiguity is especially well concealed, equally deeply involved, in the conception of Meaning. The thing which I know and which I signify with such symbols as sentences is in one sense of the word the 'Meaning' of my sentences: but it is not (except *per accidens*) an *Erlebnis* or an act of consciousness; nor is it anything constituted by an act of consciousness. Only in another sense of the word is 'Meaning' something derivative from a state or act of consciousness—namely when it is not the thing symbolised by a symbol but the fact that this symbol symbolises that thing. Certainly a symbol symbolises because we choose that it shall, so its meaning (i.e. meaningfulness) is the product of an act of consciousness, but the origin of the functioning of a symbol is no more the origin of the thing which it is its function to symbolise than the forest in which a sign-post grew is the parental home of the town to which the sign-post points.

And I stress these arguments against the Husserl–Heidegger treatment of Meaning for two connected reasons:

(*a*) I think it can be shown that Husserl's theories of Meaning (*Sinn* and *Bedeutung*) are primarily developments of Brentano's theory of 'ideas' (*Vorstellungen*). A Meaning is, at the start, just the intentional 'accusative' of

an act of 'having an idea'; later the term also covers the intentional 'accusatives' of acts of Judging, so that propositions as well as concepts are Meanings. Now (as Representationism always ends in Subjectivism) this theory has in the end to say that the world of things and events *as I apprehend* it must be just a tissue of Meanings, which Meanings must be the contribution of acts of consciousness.

(*b*) I think, too, that it can be shown that the only reason why Heidegger's Hermeneutic of '*Dasein*' takes or promises to take the form of a sort of anthropologistic Metaphysic (smelling a little oddly both of James and of St Augustine) is because Heidegger presupposes that the Meanings which his Hermeneutic is to unravel and illuminate must be in some way man-constituted.

But though I deplore the damage wrought upon his Metaphysics by the presuppositions which Heidegger has unconsciously inherited, I have nothing but admiration for his special undertaking and for such of his achievements in it as I can follow, namely the phenomenological analysis of the root workings of the human soul.

He shows himself to be a thinker of real importance by the immense subtlety and searchingness of his examination of consciousness, by the boldness and originality of his methods and conclusions, and by the unflagging energy with which he tries to think behind the stock categories of orthodox philosophy and psychology.

And I must also say, in his behalf, that while it is my personal opinion that *qua* First Philosophy Phenomenology is at present heading for bankruptcy and disaster and will end either in self-ruinous Subjectivism or in a windy mysticism, I hazard this opinion with humility and with reservations since I am well aware how far I have fallen short of understanding this difficult work.

Sein und Zeit, it is worth mentioning, is most beautifully printed and the pages have generous margins.

13

REVIEW OF MARTIN FARBER: 'THE FOUNDATIONS OF PHENOMENOLOGY'

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The major trends of philosophy of the past hundred years in both the English and the German speaking world have derived directly or indirectly from recoil against the British school of thought which began with Locke and culminated in John Stuart Mill. Subsequent theories of knowledge, perception, deduction, induction, probability, mathematics and semantics (not to speak of ethics, politics and political economy) can nearly all be traced back to revolts against the conclusions and the premisses of this school. In particular Mill's *System of Logic* (1843) stimulated (chiefly as an emetic) a galaxy of original thinkers into reconsideration of the principles of logic, epistemology and psychology.

The importation into England of the philosophies of Kant, Hegel, Lotze and Herbart had for its main motive not love of the Teutonic but nausea for Associationism. Jevons, Pearson and Venn were similarly moved to relay the foundations of the theory of scientific method. They with Caird, Green, Bradley, Cook Wilson, Grote, Sidgwick, Moore and Russell were disunitedly united in the task of refuting dogmas of the Church of Hume.

In Germany and Austria there were parallel revolts. In Germany Frege's logical and epistemological theories were Platonic repudiations of the

English psychological idealism, as this was mediated by Erdmann. In Austria Franz Brentano trained his whole school of philosophical psychologists upon the critical study of Locke, Berkeley, Hume, the Mills, Bain and Spencer.

Through his pupil Meinong (whose ultra-Platonism he repudiated) Brentano exercised, at the end of the nineteenth century, a certain cross-influence on English thought, particularly that of the early Russell. He also exercised a powerful influence upon German thought through another pupil, Edmund Husserl, though him too he disinherited both for his ultra-Platonisms and for other later offences. It is with Husserl that we are here primarily concerned.

Brentano made two radical amendments to the '*Denkpsychologie*' of the British Empiricists. (1) Accepting, unfortunately, the dogma that the ultimate elements of thought are 'ideas', and that sense-data, images and concepts can all be classified as species of ideas, Brentano set up two other radically different modes of consciousness, namely judgement and feeling. These are founded in ideas, but are irreducible to ideas or amalgamations of ideas. This generic differentiation of feelings and judgements from ideas facilitated Brentano's rejection of the whole subject-predicate analysis of propositions, and he did in fact hold (*a*) that simple existence-propositions embody only one idea or term; (*b*) that most of the propositions hitherto construed as the ascriptions of predicates to subjects should instead be construed as linguistically veiled conjunctions of existence-propositions with attributive propositions; (*c*) that so-called universal affirmatives are really negative existence-propositions. On several scores, therefore, Brentano found that the grammatical structure of sentences is not an index to the logical structure of the propositions expressed by them. Epistemology and logic needed to discard the leading-strings of ordinary syntax. Both Meinong and Husserl were insufficiently influenced by this part of their master's teaching. (2) More important in his own eyes and in those of his pupils was Brentano's second amendment, namely his doctrine of 'intentionality'. All acts of consciousness, the having of ideas, judging and feeling are intentional (or as we might say 'transitive'). Each is necessarily the sensing, imaging, conceiving, judging and liking (or disliking) *of something*. The objects (or 'accusatives') of acts of consciousness were not supposed by Brentano to be independent reals, but rather 'internal accusatives', the description of which was still the task of philosophical or descriptive psychology. Brentano was not, at this stage at least,

any sort of a Realist. None the less the properties of, say, the number 7 are quite other than those of the acts of conceiving it, just as the properties of propositions are quite other than those of the acts of judging them. In particular, numerically and qualitatively different acts on the part of the same thinker or of different thinkers can 'intend' one and the same concept or proposition. The contemporary British mishandlings of the special problem of 'abstract ideas' were due to their proper refusal to ascribe to mental acts the properties which they improperly failed to accept as characters of the intentional objects of those acts, since they failed to acknowledge the presence of these intentional objects.

Meinong took the Realist plunge of converting the internal accusatives of conception, judgement and feeling into Objects. Criticising the abstraction-theories of Locke, Berkeley and Hume on what he took to be Brentano's principles, he hypostatised all the *entia rationis* of which Plato had ever dreamed, as well as many which could never have occurred to him. Not only abstract nouns, but general nouns, all substantival verbal expressions, including descriptive phrases, sentences, optatives and the rest, were construed as being genuine proper names of higher-order entities. For all alike could be embodied in significant sentences as subjects of predication. There must *be* objects named by them, else we could not say true *or* false things about them. Unfortunately for Meinong, though most fortunately for the course of subsequent philosophy, he could not prevent some of his higher-order Objects from infringing the laws of logic. Like his contemporary Frege, who reached a similar position by an independent path, he had to accept as authentic the credentials of certain *entia rationis* which would not pass muster with the law of Excluded Middle.

In short, like Russell in his *Principles of Mathematics*, he swallowed whole the hallowed doctrine of Terms, and accordingly construed as names of genuine Terms all expressions which could stand with grammatical correctness as subjects of verbs. He merely depsychologised by hypostatising whatever satisfied this inexacting test of what constitutes a term. In him and in general, the logical Objectivism which was rife from 1890 to 1910, was, very roughly, Mill's logic refracted through a Platonic prism.

It is of historical interest to note that at the time that Russell was working out his salvation by his (and Frege's) doctrine of 'incomplete symbols', Brentano and Marty were operating with what was in effect the same weapon. They found that Meinong's grotesque conclusions derived from the assumption that all grammatical nominatives are the names of

authentic terms, and are, in the old parlance 'categorematic' or, as they put it 'autosemantic' expressions. Instead, they argued, many such nominatives share at least part of the expressive functions of 'syncategorematic' or 'synsemantic' expressions. They 'mean' not by denoting objects but by contributing to the expression of integral propositions. They belong to what is left in skeleton-sentences, after names have been struck out of them; or what they signify is part of what is common to formally similar propositions about different Terms. They belong not to the directories but to the work-sheets of thought.

Husserl began publication as a loyal disciple of Brentano. His first concern was to improve from inside the empiricist psychology of mathematical thinking, which he tried to do by giving an intentionalist but still psychological account of the genesis and manipulation of mathematical ideas. At this stage, though interested in the work of Boole, Schröder and Frege, he was not effectively influenced by it. By 1900 he had seen the light. In the first edition of his *Logische Untersuchungen*, which he wrote with the intention of discovering the true bases of mathematics, his first task was to demolish the principles and procedure of 'psychologism'—meaning by 'psychologism' any theory which reduces the description of what we think to descriptions of the internal processes through which we come to think it. Like Frege and the long-forgotten Bolzano, and considerably influenced by them, he argued against any attempt to subordinate logic and mathematics to empirical psychology. His premisses and many of his results were, not unnaturally, closely similar to those of Meinong, though this similarity neither led to nor derived from any personal sympathies between the two scions of Brentano.

Husserl, like Meinong, resolved, in effect, the old problems of abstraction by denying that abstract ideas were either ideas in the mind or abstractions. They are higher-order entities, non-actual but authentic, subsistent Terms. There *are* numbers, universals, classes, relations and propositions. 'Abstraction' is just a misnomer for our procedures in coming to apprehend them.

Much of the later parts of this edition of the *Logische Untersuchungen* (in my opinion much his best-written and best-argued book) is devoted not to the classification of his higher-order objects but to the reconstruction of epistemology and '*Denkpsychologie*'. He repudiates 'psychologism' but is still largely if not chiefly interested in applying the consequential reforms to the theory of knowledge. It was, however, the earlier parts of the book

which influenced German thought in the first decade of this century. His anti-psychologism and his ultra-Platonism won converts, while his philosophy of mind remained almost unnoticed. (He aroused almost no interest in the English-speaking world at this time. His thunder had been stolen by Meinong and Frege on the Continent, by Moore and Russell at Cambridge, and by Cook Wilson in Oxford. His message was *démodé* before it was heard of.) Husserl's next publications in and after 1913 caused both surprise and disappointment in Germany. He had changed direction once again. Weary, perhaps, of being treated as a partner or disciple of Meinong, or else perhaps half-hankering to come back to the disapproving Brentano's heel, he began to soft-pedal his ultra-Platonism (which he never, I think, disavowed) and returned instead to philosophical psychology, to the philosophical demarcation of the genera and species of acts of consciousness. He ennobled this branch of philosophical enquiry with the quaint title 'Phenomenology'; he credited it with a proprietary method which he calls 'essential' or 'exemplary intuition'; and he claimed for it an absolute logical priority over all other philosophical, scientific or historical enquiries. These three points all require some elucidation. (1) Brentano had employed the word 'Phenomena', not in its customary disparaging sense, but in a new honorific sense. The acts and processes of consciousness being self-presenting (and not representatively perceived) are realities which necessarily also appear. They cannot be without being inwardly perceived; and the perception of them is incapable of being delusive. So psychology, unlike the physical sciences, starts with hard data or 'phenomena'. Even knowledge of the non-mental has to be mediated by the direct inner perception of the acts and states of their knower's own mind. This is why Husserl calls his philosophy of mind 'Phenomenology'. Its subject-matter coincides with or overlaps that of Descartes, Locke or Kant as well, of course, as with that of empirical psychology. But it differs from both in the sorts of problems it has to solve and especially in the special method it employs for solving them.

(2) Husserl retained enough Platonism to believe that some 'essences' or generic concepts, namely those the instances of which are self-presenting, can be explored by a process of direct inspection. Somewhat as I can study a daisy with my eyes, so I can with my intellect look hard at Memory, Creative Fancy or Contempt. I can detect by non-inferential inspection what it is that their actual or imagined instances exemplify. To do this I must discard presuppositions and hypotheses and, what is harder,

train myself to look away from what usually interests me and concentrate on what I usually ignore. Namely, I must cease, for the moment, to participate in the world in order to study the various ways-of-participating-in-the-world. Daily life must be put into inverted commas, so that I may become able to consider what constitutes daily life. I must lower my telescope from my eye if I am to look at it.

It follows, as Husserl allows and insists, that different observers of these mental essences both can and should pool their results. There could and should be a central register of the (eidetic) observations made by all properly trained phenomenologists. Their results can only be false or discrepant if instead of recording observations they record the conclusions of theories. There is nothing in Phenomenology to argue.

This point merits some debate. It is common ground to Platonists and non-Platonists that we can first learn and finally know how to think *with* concepts. We can ask intelligent questions, we can intelligently debate answers to them, and in some cases we can decide these questions. Concepts are intelligently used in ordinary thinking. But according to Platonist theories the intelligent employment of concepts presupposes a prior non-judgmatic apprehension of some higher-order entities known as 'universals'. This apprehension would be something like Husserl's 'essential intuition' (his reasons for restricting this eidetic inspection to the generic and specific concepts of mental acts and attitudes need not here be considered).

Yet the moment we are told by Husserl that there is a process of directly contemplating universals we feel a certain scruple. For we know quite well not only that there do not in fact occur any such contemplations but, more, that there is some absurdity in supposing that there should. What is the source of this scruple? For the doctrine is widely regarded as at least respectable which holds that the using of concepts does presuppose the finding of special entities; yet explicit talk about this finding does cause a sense of intellectual embarrassment. Why is it not merely a tasteless metaphor but a flat impropriety to speak of 'peering at Remorse', 'gazing at Induction', 'taking a long look at Choice' or 'happening to light on Conscience'?

If we consider the intelligent use of some of the recognised syncategorematic words (sometimes called 'form-words' or 'logical constants') such as 'if', 'and', 'not', 'exists', 'some', 'all', etc., and ask whether they stand for Terms in the way in which 'Fido' stands for Fido, we have to

reply that they do not. Else, among other objections, a sentence of seven words would be just a list of seven things and so not be a sentence. It would not express a proposition. None the less these words are significant, but *not* in the sense that they stand in the 'Fido'–Fido relation to anything. Moreover, their significations can be elucidated by a certain procedure, though this procedure does not consist in acquainting or re-acquainting ourselves with their nominees. For they are not names. The procedure consists in showing, e.g., how 'if'-propositions behave differently from 'because'-propositions; how 'or'-propositions behave differently from 'and'-propositions, and how 'any'-propositions behave differently from 'some'-propositions and from 'Socrates'-propositions. We elucidate their significations by fixing the rules of their uses and not by any operation of gazing at any wearers of labels. The elucidation of 'non-formal' conception-words is performed in the same way, for 'non-formal' concepts, like Conscience and Hope, differ from formal concepts not as flesh differs from bone, but as bodies differ from skeletons, or as partly filled cheques differ from blank cheques. They, too, are abstractions from integral propositions and they embody the logical structures of those propositions. Thought does not begin with a vocabulary and then trick this vocabulary out with a syntax; its vocabulary is syntactical from the start. The intelligent use of concepts in thinking does not, therefore, presuppose a pre-judgmatic finding of entities of which concept-words are names, for concept-words, formal or non-formal, are syncategorematic. It is, therefore, nonsense (as we felt in our bones) to speak of 'intuiting essences'. The proprietary method claimed for Phenomenology is a sham, and Phenomenology, if it moves at all, moves only by the procedures by which all good philosophers have always advanced the elucidation of concepts, including consciousness-concepts.

Husserl's practice bears this out. He does often produce acute and sometimes original and illuminating elucidations of such concepts. But he does so not by barely 'constatating'. He argues. Nor does he barely record the constatations of other Phenomenologists. If he mentions them at all, he champions them, and correlates them with the rest of his system.

(3) The large claims made by Husserl for Phenomenology as the one presupposition-less theory underlying all other theories naturally expanded in his later years, when what had been an ambitious methodology burgeoned into a full Cartesian metaphysic. Not merely was the theory of

Mind logically prior to all the other branches of theory, but Mind became the source or home of all existence.

I think, but am not sure, that these conclusions issued from the following misreasoning.

(*a*) Accepting the (to me questionable) axiom of Brentano that acts of consciousness are and alone are self-presenting, it seemed to follow that my knowledge or probable hypotheses about other existences must rest on absolute knowledge of the existence of my mental processes and states. Hence the classification and anatomy of the genera and species of my mental acts is necessary for the proper understanding of my propositions about everything else. The verification of all other propositions entails the self-verification of various sorts of '*cogito*'-propositions and the ways or senses in which other things can be said to exist are pensioners of the self-established existence of my cogitatings. My world is what I think, perceive, imagine, lament, etc., and my thinking, perceiving, imagining, lamenting, etc., are not constituents of that world but its Constitution.

(*b*) Husserl, with other members of Brentano's school, early acquired the hazardous habit of assimilating the (supposedly simple) relations between acts of consciousness and their intentional objects to the (supposedly simple) relations between symbols and what they stand for. Indeed, it was assumed that to explore the signification of our symbols was to explore what are 'intended' by our intentional experiences. So yesterday's headache was described as the 'meaning' of today's memory of it. And as it is patent that our symbols mean what they do because we endow them with that function, it seemed to follow that our thinkings, etc., are responsible for their objects. As credits only exist if banks give credit, so the various objects of consciousness, including all higher-order objects, only exist because consciousness gives them their existence and their characters. Since intentionality or 'transitivity' is an internal property of consciousness, not only the having-of-objects but the objects-had are analytically contained in the descriptions of the experiences which have them. Brentano's Revised Version of Locke's theory of 'ideas' has developed into a Revised Version of Mill's.

Mr Farber's *The Foundations of Phenomenology* gives a very useful and thorough account of Husserl's development. Mr Farber is avowedly a loyal disciple of Husserl in all but his final Cartesian Solipsism, and his book is published under the auspices of the International Phenomenological Society. He endorses most of the large claims made by Husserl for his new

science, and has made a gallant attempt to paraphrase for Anglo-Saxon readers the whole of Husserl's esoteric terminology. (But he should not render '*Evidenz*' by 'evidence'; only 'self-evidence' carries the intended force.) His well-documented account of Husserl's early interests and affiliations is of considerable historical interest. With a few minor exceptions the 570 odd pages of this book are expository and not critical.

I do not expect that even the corporate zeal of the International Phenomenological Institute will succeed in winning for Husserl's ideas much of a vogue in the English-speaking world. When Husserl inherited in the early years of this century his master's '*Messiasbewusstsein*' he lost what humour he had ever possessed as well as nearly all his original clarity and vigour of style. Dazzled by the independence and originality of his own new system, he ceased to take cognisance of the views or problems of any other philosophers. Deaf to the language of others, he found that the appropriate expressions for his own discoveries required an independent mint, and he accordingly coined a vast jargon of his own which subserves, apparently, the ends neither of brevity nor of perspicuity.

Had his writings and teachings consisted even largely of his positive analyses of psychological concepts, a good deal of value would have been got from them. For despite his erroneous conviction that his method was novel, many of his particular results are fresh. But instead, the great bulk of his labours was devoted to the profitless tasks of promising epoch-making results and of demarcating the sub-faculties of his new science. The drafting of constitutions for future research organisations does not stimulate those who have yet to be satisfied that the promised organisations have any function. We should have been better satisfied with bigger slices of pudding and fewer pots and pans.

In short, Phenomenology was, from its birth, a bore. Its over-solemnity of manner more than its equivocal lineage will secure that its lofty claims are ignored.

On the other hand there is now a vogue in Germany and, oddly, in France an offshoot of Phenomenology, known as 'Existentialism', which may well be smuggled overseas in someone's warming-pan. For it is a part of culture to believe that all culture comes from Paris, so Martin Heidegger's graft upon his former master's stock is not unlikely before long to be adorning Anglo-Saxon gardens.

Apparently what has happened is this (I do not vouch for the whole story): Husserl had, like Aristotle, discerned several different senses of the

verbs 'to be' and 'exist'. Unlike Aristotle he correlated these differences with differences between the various moods and inflections of consciousness. The *radical* sense of 'exist' is that recorded in the slogan *Cogito ergo sum*. The most primitive and basic mode of consciousness is 'the having of ideas' (*Vorstellung*). All other modes of consciousness are founded in the having of ideas. Heidegger retained the intentionality dogma, but rejected, perhaps as over-intellectualistic, the axiom that consciousness first realises itself in the having of ideas. Feelings, for example, are at least as directly constitutive of my world as are ideas or concepts, and the latter are not presupposed in the former.

None the less he continued to speak of the 'meanings' of acts of consciousness and to equate my world with the conglomeration of these meanings (although in the beginning this incautious ascription of 'meanings' to acts of consciousness had been just an elaboration of the Lockean theory of ideas).

I *think* Heidegger or members of his school hold that ideas and judgements, so far from underlying feelings and volitions, are supervenient constructions or efflorescences of them. Not, therefore, 'in the beginning was the Word' but 'in the beginning was the cry'.

The Existentialists also (again, I *think*) adhere to the proprietary intuitions of Husserl, oblivious of the fact that the case for their existing rested upon a Platonised reconstruction of Mill's doctrine of Idea-Terms. At least the language of some of the members of the school has the Eleusinian ring of intuitionism. It is not made forensic by argument. Part of the popularity of the new creed is doubtless due to its momentary congeniality to the territories of despair. Lack of hope tends to result in the multiplication of faiths, so lands west of the North Sea may also be ripe for similar evangelisation.

14

DISCUSSION OF RUDOLF CARNAP: 'MEANING AND NECESSITY'

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Professor Carnap in his new book proffers a method for analysing and describing the meanings of expressions and, more briefly, discusses the theory of logical modalities, the concepts, that is, of logical necessity and possibility. His meaning-analysis is in the main intended as an improvement upon certain doctrines and practices of Frege. His account of the modal concepts of logic is in the main intended as an improvement upon certain doctrines of C. I. Lewis. Views of Quine, Russell, Tarski, Church and others are also discussed.

Students of Carnap's other writings will notice with interest that he has now swung still further from the extreme nominalism of his earlier years. Inverted commas are no longer his panacea, and he now makes alarming requisitions upon philosophy's stock of extra-linguistic entities. Indeed, he seems to need at least as many as Meinong needed, and for almost the same bad reasons. A more reassuring trend is his growing willingness to present his views in quite generous rations of English prose. He still likes to construct artificial 'languages' (which are not languages but codes), and he still interlards his formulae with unhandy because, for English speakers, unsayable Gothic letters. But the expository importance of these

encoded formulae seems to be dwindling. Indeed I cannot satisfy myself that they have more than a ritual value. They do not function as a sieve against vagueness, ambiguity or sheer confusion, and they are not used for the abbreviation or formalisation of proofs. Calculi without calculations seem to be gratuitous algebra. Nor, where explicitness is the desideratum, is shorthand a good substitute.

The only comment that I shall make upon his account of modal concepts is that he says nothing about most of our ordinary ways of using words like 'may', 'must', 'cannot', 'possible' and 'necessary'. He discusses the 'mays', 'musts' and 'need nots' of logic, but not those of legislation, technology, games, etiquette, ethics, grammar or pedagogy. Above all, he says nothing about laws of nature or the concepts of natural necessity, possibility or impossibility.

The bulk of the book is concerned with what Carnap calls 'meaning-analysis', i.e. with the elucidation of the concept of 'the meaning of an expression' or of 'what the expression "so and so" means'. This elucidation diverges slightly from that of Frege. Carnap is solicitous not to seem to be accusing Frege of error; his views had led to inconveniences, from which Carnap hopes that his alternative account is exempt. I shall be less solicitous and shall argue that both Frege's and Carnap's theories are either erroneous or worse.

Frege, like Russell, had inherited (directly, perhaps, from Mill) the traditional belief that to ask What does the expression 'E' mean? is to ask To what does 'E' stand in the relation in which 'Fido' stands to Fido? The significance of any expression is the thing, process, person or entity of which the expression is the proper name. This, to us, grotesque theory derives partly, presumably, from the comfortable fact that proper names are visible or audible things and are ordinarily attached in an indirect but familiar way to visible, audible and tangible things like dogs, rivers, babies, battles and constellations. This is then adopted as the model after which to describe the significance of expressions which are not proper names, and the habit is formed of treating the verb 'to signify' and the phrase 'to have a meaning' as analogous relation-stating expressions. 'What that expression means' is then construed as the description of some extra-linguistic correlate to the expression, like the dog that answers to the name 'Fido'. (Similar reasoning might coax people into believing that since 'he took a stick' asserts a relation between him and the stick, so 'he took a walk', 'a nap', 'a job', 'a

liking', 'the opportunity' or 'time' asserts a relation between him and a funny entity.)

Now a very little reflection should satisfy us that the assimilation to proper names of expressions that are not proper names breaks down from the start. (Indeed the whole point of classing some expressions as proper names is to distinguish them from the others.) No one ever asks What is the meaning of 'Robinson Crusoe'?, much less Who is the meaning of 'Robinson Crusoe'? No one ever confesses that he cannot understand or has misunderstood the name 'Charles Dickens' or asks for it to be translated, defined, paraphrased or elucidated. We do not expect dictionaries to tell us who is called by what names. We do not say that the river Mississippi is so and so *ex vi termini*. A man may be described as 'the person called "Robin Hood" ', but not as 'the meaning of "Robin Hood" '. It would be absurd to say 'the meaning of "Robin Hood" met the meaning of "Friar Tuck" '. Indeed, to put it generally, it is always nonsense to say of any thing, process or entity 'that is a meaning'. Indeed, in certain contexts we are inclined not to call proper names 'words' at all. We do not complain that the dictionary omits a lot of English words just because it omits the names of people, rivers, mountains and novels, and if someone boasts of knowing two dozen words of Russian and gives the names of that number of Russian towns, newspapers, films and generals, we think that he is cheating. Does 'Nijni Novgorod is in Russia' contain three, four or five English words?

There are indeed some important parallels between our ways of using proper names in sentences and our ways of using some, but not many, sorts of other expressions. 'Who knocked?' can be answered as well by 'Mr Smith' as by 'the landlord'; and in 'the noise was made by Fido', 'the noise was made by the neighbour's retriever' and 'the noise was made by him' the proper name, the substantival phrase and the pronoun play similar grammatical roles. But this no more shows that substantival phrases and pronouns are crypto-proper names than they show that proper names are crypto-pronouns or crypto-substantival phrases.

Two exceptions to the 'Fido'–Fido principle were conceded by its devotees.

(1) Frege saw that the phrases 'the evening star' and 'the morning star' do not have the same sense (*Sinn*), even if they happen to apply to or denote (*bedeuten*) the same planet. An astronomical ignoramus might understand the two phrases while wondering whether they are mentions

of two planets or of only one. The phrase 'the first American pope' does not apply to anyone, but a person who says so shows thereby that he understands the expression. This concession seems to have been thought to be only a tiresome though necessary amendment to the 'Fido'–Fido principle. In fact it demolishes it altogether. For it shows that even in the case of that relatively small class of isolable expressions, other than proper names, which are suited to function as the nominatives of certain seeded subject-predicate sentences, knowing what the expressions mean does not entail having met any appropriate Fidos or even knowing that any such Fidos exist. The things ('entities'), if any, to which such expressions apply are not and are not parts of what the expressions mean, any more than a nail is or is part of how a hammer is used.

(2) The traditional doctrine of terms had required (confusedly enough) the analysis of proposition-expressing sentences into two, or, with heart searchings, three or more 'terms'; and these terms were (erroneously) supposed all to be correlated with entities in the 'Fido'–Fido way. But sentences are not just lists like 'Socrates, Plato, Aristotle', or even like 'Socrates, mortality'. For they tell truths or falsehoods, which lists do not do. A sentence must include some expressions which are not terms, i.e. 'syncategorematic words' like 'is', 'if', 'not', 'and', 'all', 'some', 'a' and so on. Such words are not meaningless, though they are not names, as all categorematic words were (erroneously) supposed to be. They are required for the construction of sentences. (Sometimes special grammatical constructions enable us to dispense with syncategorematic words.) Syncategorematic words were accordingly seen to be in a certain way auxiliary, somewhat like rivets which have no jobs unless there are girders to be riveted. I have not finished saying anything if I merely utter the word 'if' or 'is'. They are syntactically incomplete unless properly collocated with suitable expressions of other sorts. In contrast with them it was erroneously assumed that categorematic words are non-auxiliary or are syntactically complete without collocations with other syncategorematic or categorematic expressions, as though I have finished saying something when I say 'Fido', 'he', 'the first American pope' or 'jocular'. Russell's doctrine of incomplete symbols was a half-fledged attempt to re-allocate certain expressions from the categorematic to the syncategorematic family. It was half-fledged because it still assumed that there were or ought to be some syntactically complete categorematic expressions, some 'logically proper names' which would brook being said *sans phrase*. To call

an expression 'incomplete' was erroneously supposed to be saying that it did not function like a name, as if the standard of completeness were set by names and not by sentences; in fact it is saying that it is only a fragment of a range of possible sentences. So ordinary proper names are (save perhaps in some of their vocative uses) as incomplete as any other sentence-fragments.

Frege had, in consistency, to apply his modified 'Fido'–Fido principle to expressions of all sorts, save those which are patently syncategorematic. So he had to say, for example, that a full indicative sentence both names an entity and has a sense (*Sinn*). Its sense is what is sometimes called a 'proposition'; its nominee is a queer contraption which he calls a 'truth value'. To use Mill's language (from which, perhaps, Frege's *Bedeutung* and *Sinn* were adapted), an indicative sentence denotes a truth value and connotes a proposition (or *Gedanke*, as Frege calls it).

Carnap diverges slightly from the 'Fido'–Fido principle—or rather he thinks he diverges from it. (But his divergence is not due to recognition of any of the difficulties that I have adduced above.) Instead of speaking of expressions as 'names', he gives them the intimidating title 'designators'. (He likes to coin words ending in '. . . tor'. He speaks of 'descriptors' instead of 'descriptions', 'predicators' instead of 'predicates', 'functors' instead of 'functions', and toys with the project of piling on the agony with 'conceptor', 'abstractor', 'individuator' and so on. But as his two cardinal words 'designator' and 'predicator' are employed with, if possible, even greater ambiguity and vagueness than has traditionally attached to the words 'term' and 'predicate', I hope that future exercises in logical nomenclature will be concentrated less on the terminations than on the offices of our titles.) By a 'designator' Carnap means 'all those expressions to which a semantical analysis of meaning is applied', i.e. 'sentences, *predicators* (i.e. predicate expressions, in a wide sense, including class expressions), *functors* (i.e. expressions for functions in the narrower sense, excluding propositional functions), and individual expressions; other types may be included, if desired (e.g. connectives, both extensional and modal ones). The term "designator" is not meant to imply that these expressions are names of some entities . . . but merely that they have, so to speak, an independent meaning, at least independent to some degree' (*sic*) (p. 6). Thus everything goes to the laundry in the same washing-basket, from '(declarative) sentences', which have 'a meaning of the highest degree of independence', down to 'expressions with no or

little independence of meaning ("syncategorematic" in traditional terminology)' (p. 7). It is an inauspicious start, particularly since the notion of independence is not only left perfectly vague but is repeatedly spoken of as something of which there are degrees.

It is, however, clear from his practice, though not from his statement, that 'designator' is generally equivalent to the word 'term' of the (I had hoped, moribund) tradition.

Instead of saying, after Frege, that what a designator means is, in the first instance, that to which it stands as 'Fido' stands to Fido, Carnap says that what a designator means is two things at once, namely the intension that it has and the extension that it has. The intension corresponds with Frege's sense (Sinn); the extension is what the designator actually applies to. Knowing the intension of a designator is understanding it; knowing its extension is knowing some facts about both the designator and the furniture of the world, namely that the designator applies to certain bits of that furniture. Carnap says a little, though not enough, about fictitious and nonsensical designators, i.e. those which do not in fact have and those which could not conceivably have extensions. He wrongly says (on p. 202), what, in effect, he rightly denies (on pp. 21 and 30), 'We must realize that every designator has both an intension and an extension.'

As a senseless designator cannot and a fictitious designator does not apply to anything, it is clear that the question whether a designator does apply to anything cannot arise until after we know what, if anything, it means. The things it applies to, if any, cannot therefore, for this and other reasons, be ingredients in what it means. It should be noticed that we hardly ever know and hardly ever want to know how many things, if any, our designators apply to. We do not have inventories of stars, ripples or jokes; nor do we try to get them. But we can talk sense and follow talk about stars, ripples and jokes. So we are not missing anything we want to know about the uses of expressions if we do not know their extensions (in this sense).

But these supposedly twin notions of 'having an intension' and 'having an extension' need further examination. Carnap professes in his use of them to be merely clarifying a traditional usage. Yet not only have there been several discrepant usages (as Joseph and Keynes showed long ago), but the usage to which Carnap attaches himself belonged to the muddled doctrine of terms, which itself rested on the 'Fido'–Fido principle which he disclaims. I think he actually confuses two nearly disconnected usages

when he assimilates the sense in which truth-functions are called 'extensional' while modal functions are called 'intensional', to the sense in which certain nominatives are said to have extensions and intensions. The use of 'extensional' and 'intensional' to mean 'non-modal' and 'modal', derives from the debate about the ambiguity of the word 'all' as meaning sometimes 'every one of the . . .' and sometimes 'any . . .'. No one, I think, ever couched this debate in the dictions of 'denotation' and 'connotation'. On the other hand the debate about the extensions and intensions (i.e. the denotations and connotations) of terms of (some) substantival expressions was not a debate about the ambiguity of a certain syncategorematic word, but, supposedly, about the dual function of all ordinary categorematic words that are used or usable in the subject-place in subject-predicate sentences. The connection between the two debates was, I imagine, this. Some people said that in 'all men are mortal' we are talking about or mentioning some men; others said that we need not be doing this, but only saying that there could not be any immortal men. The former were saying that the sentence was a categorical one, the latter that it was hypothetical. The former were committed to saying that the subject-term of their categorical sentence must, *qua* being a subject-term, name or denote some men. The latter were saying that the protasis of a hypothetical is not asserted for true and that the whole hypothetical could be true even though it was actually false that there existed any men, so no men were named or denoted by any part of the protasis.

The traditional doctrine erroneously took the two premisses and the conclusion of any syllogism as isomorphous subject-predicate propositions and, out of deference to Barbara, took such supposedly bi-polar propositions as the standard model of all or of all respectable propositions. All such propositions are, it supposed, analysable into a subject-term coupled by a copula to a predicate-term. And what was predicate-term in one proposition could, with perhaps a little surreptitious re-wording, reappear as subject-term in another.

The subject-term was the name of what the proposition was about; the predicate-term named what was affirmed or denied of that subject. Ordinarily the subject-term was supposed to name a particular (or a batch of particulars) and the predicate-term was supposed to name the attribute or property that was asserted or denied to belong to it (or them). Now though the predicate-term of a standard subject-predicate proposition could (it was wrongly thought) move over unmodified to be the

subject-term of another proposition, still in the propositions in which it functions predicatively it does not do, what the subject-term does, namely mention the thing or things that the proposition is about. It is, roughly, only in their subject roles that terms are used mentioningly. (And even this does not hold in, for example, the propositions of fiction, where the subject-terms are used only quasi-mentioningly. It does not hold in affirmative or negative existence-propositions. It does not hold in all identity-assertions, or in definitions. And it does not hold in assertions of the pattern 'any S is P'.)

Where the subject-terms of such sentences are used mentioningly, be they names, pronouns, demonstratives or substantival phrases, we could say, if there were any point in doing so, that the things, persons or processes mentioned were the 'extensions' or the 'denotations' of those nominatives; and we could extend this to the things, persons or process mentioned by such other mentioning expressions as might occur in, for example, relational sentences like 'Caesar was killed by his friend Brutus'. But then it would be quite clear that other fragments of sentences such as 'is mortal' or 'was killed by' are not mentioning expressions and have no extensions or denotations in this sense. Nor would entire sentences have extensions or denotations in this sense. It should also be clear that the persons, things or processes so mentioned are not themselves parts of the meanings of the mentioning expressions. It would belong to the meaning of 'his friend Brutus', *that* it was being used to mention just this person, just as it is the present function of this hammer to knock in this nail. But the nail is not part of the present function of the hammer, and Brutus is not part of the use of an expression which mentions him. To understand the reference would be to realise that this was how it was being used. But Brutus could not be a way in which an expression was used.

On this interpretation, only a minority of expressions would have extensions; none of the standard syncategorematic expressions and none of the standard predicate-expressions would do so; no sentences or sub-sentences, and not even the nominatives of all subject-predicate sentences would do so; and even those expressions which are used mentioningly would not have the mentioned persons or things, but only the fact that they were mentioned, as parts of their meanings. In particular it is an error to suppose that predicatively used expressions like 'is omniscient' or 'is the friend of Caesar' can be transferred unaltered to the subject-place. For, for one thing, it is an important grammatical fact that since neither 'is

omniscient' nor 'omniscient' can be the subject of a verb, a new nominative has to be constructed such as 'the omniscient being' or 'all omniscient persons'; and this is not equivalent to the predicate '. . . omniscient'. And this grammatical fact reflects a difference of employment; for 'the omniscient being' and 'all omniscient beings' are ordinarily used in the mentioning way, which was not how the predicate had been used. It is a corresponding error to suppose, as Carnap seems to do, that a 'predicator' is being mentioningly used in another way, namely as mentioning a property, e.g. a quality, a state, a relation or a natural kind. The predicate in 'Socrates is mortal' does not mention the property of mortality—we use the noun 'mortality' for that purpose. Adjectives and verbs do not do the same jobs as the abstract nouns that are commonly formed out of them and we have to know how to use adjectives, verbs, etc., for their own jobs before we can learn to use the corresponding abstract nouns for their quite different jobs. Only the sophisticated mention or talk about properties. It is not true, therefore, that predicators jointly mention properties and either the things that have them or (what is quite different) the class of things that have them. The truth is that they do not do either of these things; for they are not mentioningly used expressions.

One of Carnap's major concerns is to resolve the long-standing dispute whether predicate-expressions stand for (or denote) properties or classes. Believers in universals assert the former; believers in classes assert the latter. Carnap's eirenicon is to say that they do both at once. They have classes for their extensions and properties for their intensions. But the dispute was a spurious one. For the predicate-expressions alluded to are not mention-expressions or, more specifically, names, at all. We mention classes by such phrases as 'the class of . . .', and we mention properties by such expressions as 'jocularity'. The adjective 'jocular' is not used and could not grammatically be used to deputise for either. Nor could they deputise for it.

Carnap's way of (nominally) dispensing with the 'Fido'–Fido principle does not release him from the Frege–Meinong embarrassments about sentences. The sentences which he calls 'declarative' (which appears to mean what everyone else means by 'indicative'), while not described as names of subsistent truths and falsehoods, are none the less described as having such entities for their intensions. For their extensions they have some mysteries called 'truth values'. For sentences, having been classed as a species of 'designator', have to possess their significance in the ways

prescribed generally for designators. And a designator, we are told in another connection (p. 107), 'is regarded as having a close semantical relation not to one but to two entities, namely its extension and its intension, in such a way that a sentence containing the designator may be construed as being about both the one and the other entity'. So though in fact only a minority of sentence-fragments, namely mentioningly used substantival expressions, can be said to have extensions, Carnap has to assimilate the jobs even of sentences to this special job of a species of sentence-fragments. And this is precisely parallel to the Frege–Meinong mistake of treating sentences as names. These theorists assimilated saying to calling; Carnap assimilates saying to mentioning. Yet both mentions and names (which are a species of mention) are ordinarily used only as fragments or sentences. They enable us to say certain sorts of things, but when we have uttered them by themselves we have not yet said anything.

Carnap flounders uneasily over the question How do false sentences mean anything? as anybody must who thinks that 'meaning something' is a relation-expression. He thinks that true sentences have propositions for their intensions, which propositions are cosily exemplified by facts. (I fail to see how a fact can be an example of a true proposition. Could there be several examples of the same true proposition and, if not, what does 'example' mean?) But a false proposition is not thus cosily matched. So Carnap has to say that a proposition is a compound of elements each of which is severally exemplified, though the compound of them is not. A sentence is, therefore, after all, just a list. 'Socrates is stupid' is equivalent to 'Socrates, attribution, stupidity'. Three entities are mentioned in one breath, but no one thing is said. Plato knew better than this, but then he paid some attention to saying.

Carnap generously, if somewhat airily, says that readers who are discontented with his account of the meanings of entire sentences need not let it worry them. The rest of his theory of meaning does not hinge on this particular bit of it. But surely, if his method of meaning-analysis does not apply to what a sentence means, this shows that there is something wrong with his method. And, worse than this, if the one section in which he tries to discuss saying (as distinct from naming and mentioning) is inadequate or wrong, it would be rash to feel confident in the merits of his account of the meanings of sentence-fragments. If the plot of the drama is bungled, the scenes and acts can hardly be well constructed.

Carnap more than once says that he is not guilty of hypostatisation, though he has to find not one but two entities to be the correlates of every designator. The term 'entity' we are requested to take, leaving aside 'the metaphysical connotations associated with it', 'in the simple sense in which it is meant here as a common designation for properties, propositions and other intensions, on the one hand, and for classes, individuals and other extensions, on the other. It seems to me that there is no other suitable term in English with this very wide range' (p. 22). Shades of Meinong! Now by 'hypostatisation' we mean treating as names or other sorts of mentions expressions which are not names or other sorts of mentions. And just this is the tenor of the whole of Carnap's meaning-analysis. True, he abjures certain mythological dictions in which some philosophers have talked about their postulated entities. True, too, he sometimes uses hard-headed (but none the less mythological) dictions of his own, as when he says 'the term "property" is to be understood in an objective, physical sense, not in a subjective, mental sense; the same holds for terms like "concept", "intension", etc. The use of these and related terms does not involve a hypostatization' (p. 16); and 'the term "concept" . . . is not to be understood in a mental sense, that is, as referring to a process of imagining, thinking, conceiving, or the like, but rather to something objective that is found in nature and that is expressed in language by a designation of non-sentential form' (p. 21). Whereabouts in nature are we to look for concepts? How are the properties 'Jocularity' and 'Primeness' to be understood in a physical sense?

My chief impression of this book is that it is an astonishing blend of technical sophistication with philosophical naïveté. Its theories belong to the age that waxed with Mill and began to wane soon after the *Principles of Mathematics*. The muddled terminology of extension and intension which belonged to the muddled and obsolete doctrine of terms is disinterred in order to help construct a two-dimensional relational theory of meaning, at a time when it ought to be notorious that relational theories of meaning will not do.

Carnap's influence on philosophers and logicians is very strong. The importance of semantic problems in philosophy and logic cannot be overestimated. It is because I fear that the solutions of these problems may be impeded by the dissemination of his mistakes that I have reviewed so scoldingly the treatise of a thinker whose views are beginning to be regarded as authoritative.

15

LOGIC AND PROFESSOR ANDERSON

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Professor Anderson has, during the last quarter century, exercised a powerful influence on philosophical thought in Australia, and especially in Sydney. But since nearly all his published writings have been articles or reviews in *The Australasian Journal of Psychology and Philosophy*, contemporary European and American philosophers have learned little, if anything, of his views. Nor have their activities, during this quarter century, occasioned any conspicuous reactions in him. None the less there are certain interesting parallels to be found between some of his and some of their ideas, as well as certain equally interesting divergences.

I want to bring out and discuss, I hope provocatively, what I take to be the core of Anderson's philosophy. But I should make it plain from the start that I have only his published writings to go on (and not quite all of them). I know nothing at first hand of his unpublished teachings, and I have next to no idea to what extent he has abandoned or modified opinions expressed in his earlier writings. So I may ascribe to him views which his pupils know to be no longer his, and even treat as his abiding premisses what they know to be discarded errors. All my citations are from his articles, reviews and discussions in *The Australasian Journal of Psychology and Philosophy*. I normally refer to these by title and year.

(1) Anderson has been a consistent and strenuous campaigner against all sorts of philosophers' 'ultimates'. Championing a view which he entitles sometimes 'realism', sometimes 'empiricism', he crusades against various sorts of Idealism, Monism, Dualism and Rationalism. When philosophers postulate proprietary entities, such as the Absolute, subsistent universals, *a priori* principles, necessary truths, internal relations, *ad hoc* Faculties, ideas, sensa and the like, Anderson assails them. He is, in this respect, a fellow-deflationist with Mach and Ostwald, James and Schiller, the New Realists, Moore, Russell and the Vienna Circle. He bombards some of these when they, in their turn, postulate or argue for factitious entities or principles. There are not any different levels or kinds of existence such that, for example, scientists explore one of them while philosophers explore another. Whatever exists or occurs exists or occurs in space and time. There is nothing other-worldly to describe. There are only brass tacks.

Were I trying to do justice to the whole of Anderson's thinking, I should have to expatiate on his numerous, very cogent, ingenious and original polemical arguments. His shot and shell do great damage to the positions that he is attacking. Platonic Forms, internal relations and twentieth-century sensa, in particular, receive an effective trouncing at his hands. But I am concerning myself not with the fate of inflationist doctrines which have been under fire for so long in both hemispheres, but with one position which is peculiarly Andersonian.

(2) On the other hand, though resembling some of these European thinkers in rejecting the idea that philosophy differs from the sciences in being the science of the other-worldly, he differs from them in refusing to draw a sharp distinction of any other sort between philosophy and science. Indeed, unlike them, he is not much interested in the domestic problem of the role and methods of philosophy. Where we in the northern hemisphere have debated, almost *ad nauseam*, the notions of analytic truths, clarification, philosophical analysis, meta-languages, logical syntax and the rest, Anderson seems content to suggest (surely falsely) that doing good philosophy is doing good science, and doing bad (e.g. metaphysical) philosophy is doing bad science. He says, in a review in 1935, 'This work [of extending the interest in philosophy] requires the rejection of both scepticism and "construction" in favour of *discovery*, and incidentally the removal of any postulated opposition between science and philosophy, which are both concerned with facts'; and, later, 'But the philosophical

criticism of science is possible not because philosophy has its own province, "the province of the 'ultimate' ", but because philosophy is science and has true statements to make about the very things any special scientist is examining—and he will know these things better, i.e. be a better scientist, if he knows their philosophical features'; and 'Further, what is called "method" is not something different from "findings"; method, which is the same in philosophical as in other science, consists in finding certain relations which things have (e.g. implication) . . .'.

(3) The principle from which Anderson derives his *Gleichschaltung* of philosophy with natural science can be seen operating again, and much more frequently, in his *Gleichschaltung* of ethical statements with scientific statements. Predicates like 'good', 'bad', 'right', 'wrong' and 'virtuous' must not be construed as signifying other-worldly qualities or relations; therefore, they must be construed as signifying ordinary, this-worldly qualities or relations. To say that something is good is to describe a spatio-temporal situation, just as much as to say that something is hot or red. We find out that things are good or bad in just the same ways as we find out that they are hot or red.

> (*a*) In a moral judgment, as in any other, something is judged or asserted, i.e. some situation is said to have occurred; . . . [and] statements such as 'This is good' are made, and they must be met or supported in just such ways as would be employed in dealing with the statement 'This is sulphur'. . . . the logic of moral events is the same as that of any other events. ['Determinism and Ethics', 1928.]

> (*b*) Extension of knowledge is possible, then, if we view things naturalistically and reject all conceptions of mysterious powers, of ultimates and higher realities. This applies as much to ethics as to any other science. If there is to be any ethical science, then ethical ultimates or powers, moral agencies above the historical facts, must be rejected. If we are to say significantly that ethics deals with goods, we must be able to exhibit goods as going on, as definitely located activities, just as we exhibit moving bodies or growing plants. . . . Ethical theory then is not a policy. It consists of propositions to the effect that such and such things are good and that they work in such and such ways. But, of course, a student of ethics may have a policy. . . . The question for ethics then is to exhibit the working of forces of a specific kind, not to call for approval or

> support for them. . . . Goods, as social forces, as forms of organization, are engaged in struggle and develop ways of working in that struggle. ['Realism versus Relativism in Ethics', 1933.]

> (*c*) Two consistent attitudes can be adopted. One is to deny that goodness is a quality, to take a purely relational view of it, e.g. that it is the demanded. . . . The other is to take good simply as a quality, to recognize goods as things existing in certain places and going on in certain ways. On this view, though not on the other, there will be a distinct science of ethics, but it too will be a positive or natural science. . . . This means that we can acquire a knowledge of good, in particular, only as something upon which we can act and which can act on us—only as something 'natural', present in our environment. Unless good is one description of certain things, helping us to recognize them just as their being green might do, we can have and communicate no knowledge of it—assuming, that is, that it is not something relational; . . . ['The Meaning of Good', 1942.]

> (*d*) We learn about goods, as about other things, by observing them; . . . ['Realism and Some of its Critics', 1930.]

The principle is clear. Ethical predicates are not to stand for any other-worldly qualities or relations; therefore they have to be construed as standing for this-worldly qualities or relations. They signify ordinary, empirically ascertainable properties of things or occurrences or activities. The vocabulary of an encyclopaedia of the natural sciences will contain words like 'good' and 'bad' just as it contains words like 'sulphur', 'red' and 'growing'.

Like, for example, some members and followers of the Vienna Circle, Anderson begins by denying that ethical predicates stand for transcendent properties. But while they drew the consequence that ethical predicates do not stand for qualities or relations at all, but are merely emotive or hortatory expressions, Anderson draws the consequence that they stand for empirically ascertainable qualities or relations. Where they said that ethical pronouncements cannot express propositions, since they cannot, in principle, be verified or falsified by observation or experiment, Anderson says that they do express propositions, or describe spatio-temporal situations, and therefore that they are empirically verifiable or falsifiable.

(4) Anderson's general deflationist line of argument comes out very clearly in his early (and I hope outgrown) account of mathematics ('Empiricism', 1927). After attacking idealism and rationalism for making their distinctions between higher and lower truths, higher and lower realities, and the rest, he says, 'Thus empiricism regards it as illogical to make such distinctions as that between existence and subsistence or between the "is" of identity, that of predication and that of membership of a class; and still more obviously illogical to say that there *is* something defective about "is" itself'; and, later, 'Rejecting in this way the distinction between necessary and other truths . . .'; and, later, 'And all this implies, I maintain, that science depends entirely on observation, i.e. on finding something to be the case, and on the use of syllogism, either for proof or testing; or, more generally, on observation in connection with, and in distinction from, anticipation. This means that there is no distinction between empirical and rational science. Since everything that can be asserted can be denied or doubted, since deduction and hypothesis are always possible, all sciences are observational and experimental.'

He then moves on to try to show that geometry is an empirical science. 'Our geometrical theorems are themselves the results of careful observation'; '. . . that geometry is, like all others, an empirical or experimental science, dealing with things of a certain sort, that there is nothing *a priori* about it, but that it is concerned throughout with fact.' 'Geometry, we may say, is concerned with empirical characters and relations of things in space and is a practical science, and Euclidean geometry consists not of "implications" but of propositions (connected to some extent, of course, by argument) which are either true or false.' The finale of this article runs, 'And therefore all ideals, ultimates, symbols, agencies and the like are to be rejected, and no such distinction as that of facts and principles, of facts and values, can be maintained. There are only facts, i.e. occurrences in space and time.'

In another context he says, 'And finally, unless we could find implication as a relation among propositions, i.e. unless implication were a *sensible fact* [A.'s italics], we should never know how to infer' ('Realism and Some of its Critics', 1930).

(5) What has gone wrong? Why, if Anderson justifiably rejects Platonic or Lockean or Meinongian or Hegelian stories, is he therefore driven to tell his equally impossible stories about mathematics, good and implication? We may approach at least part of the answer in this way.

There is obviously a certain affinity between Anderson's spatio-temporal situations and the atomic facts once patronised by Russell and Wittgenstein. Their completely elementary propositions assert that named particulars have specified qualities or else stand in specified relation to other named particulars. What, in the last resort, i.e. at the terminus of analysis, makes a non-analytic statement true or false is the obtaining of particular matters of fact; and each particular matter of fact is a value of 'S is P' or 'A is γ to B'.

But here an important difference is to be noticed. Russell and Wittgenstein did not suppose that all or most or perhaps any of the assertions that we actually make are atomic statements. They are, rather, cheques drawn against these solid coins. The statements that we ordinarily make are logically (not necessarily grammatically) highly complex and general. Explicitly or implicitly, they embody conjunctions, quantifiers and variables. So that whereas one atomic proposition can, apparently, differ in form from another only as a simple, singular, affirmative, attributive proposition differs from a simple, singular, affirmative, relational proposition, an ordinary proposition, on the other hand, can differ in form from another in a host of ways—as negative from affirmative, as singular from general, as singly general from multiply general, as conjunctive from disjunctive, as analytic from synthetic, as modal from categorical, and so on indefinitely. Perhaps the bank-till houses only pennies and shillings, but the cheques we draw on this hard cash can differ from these and from one another in an endless variety of ways.

Now Anderson seems to be oblivious of any logical differences save the difference between qualities and relations. His regular touchstone is the question 'Quality or Relation?' Is knowing (or willing) a quality? No; so it must be a relation. Is good a relation? No; so it must be a quality.

I do not wish to argue the question whether or not we can produce specimens of elementary propositions; or whether or not the possibility of exhibiting more complex and/or general propositions as compositions of (or operations upon) less complex and/or general propositions entails the existence of a stratum of perfectly simple and completely non-general propositions. Nor do I wish to debate the question whether Anderson is right in thinking that any elementary proposition is either an attributive or a relational proposition, or whether Aristotle was right in thinking that there were six, seven or eight other options. Somebody called 'Logic' seems to have confided the dichotomous answer to Anderson, and perhaps she has given him some good reasons for it.

The important thing is that Anderson seldom, if ever, finds occasion even to mention such propositional differences as those between negative and affirmative; conjunctive, disjunctive and simple; analytic and synthetic. The roles in arguments of such words as 'any', 'some', 'all', 'most', 'a', 'the', 'if', 'because', 'therefore', 'probably', 'may', 'cannot', etc., go undiscussed and for the most part unmentioned. Yet it is precisely those statements which incorporate these words, or could be reworded so as to incorporate them, that seem patently misconstrued when construed as reporting or describing spatio-temporal situations. Does 'John is not at home' describe the same situation as 'John is at the theatre', or a different situation? Does 'somebody telephoned' give you the same information as 'John telephoned' or different information? Does 'if the glass drops, there will be a gale' report a gale, or any other meteorological occurrence?

That Anderson does intend to construe all assertions after one model is shown by the statement already cited, 'In a moral judgement, as in any other, something is judged or asserted, i.e. some situation is said to have occurred.' Taken at face value, this assertion requires us to believe that we can never judge or assert that a situation has not occurred, that a situation will occur, that a situation might or cannot occur, that situations of a certain sort can be relied on to occur whenever other specified situations occur, that either situation A has occurred or situation B has occurred, or that either situation A has occurred or it has not occurred. For if we could assert such things, we should be asserting something other than that some situation has occurred. Furthermore, since, when we are told that something has occurred, it is always proper to ask when and where it occurred, we are, by implication, forbidden to make or understand statements to which these questions are not appropriate. But when told that sugar is soluble or that swans are white (as distinct from 'a piece of sugar dissolved' or 'there was a white swan'), we could not significantly ask 'When?' or 'Where?'—since 'anywhere' and 'anywhen' are already connoted by the (tenseless) verbs of such generalisations. So no generalisations or causal laws are true (or even, I suppose, false). It is true that in his discussion of Causality in 1938 Anderson does not merely allow but insist that particular causal statements rest on universal propositions. 'It *is* natural, then, that, to the question what causes a certain sort of thing, the answer should be "a certain sort of thing"; it appears that what we are all the time seeking to establish is a general connection, that is to say a universal proposition, to assert which is to assert that something happens invariably.' So, pre-

sumably, he has wisely given up his principle that in all judgements or assertions 'some situation is stated to have occurred'. He is here implying that at least one sort of general proposition is not to be construed as a report of a particular spatio-temporal situation or even as a batch of reports of particular spatio-temporal situations. (Why, indeed, should they be? Unlike Reuters, we do not want to learn only what has occurred.)

On the other hand, in 1930 ('Realism and Some of its Critics') he had said, 'It has therefore to be recognised that "This body is fiery", "This body is hot" and "Fire is hot" are propositions all of the same order, and their terms are all of the same order.' This was said in criticism of the Platonising view that 'the idea is of a different order to the thing compared, and cannot in any sense be regarded as another thing alongside these with which they can be compared'. So it may merely be an odd way of asserting, what is true, that the universal proposition 'Fire is hot' must not be construed as ascribing a temperature (not to these bonfires or those coal fires, etc., but) to a 'universal'. However, I think that Anderson does confuse the truth that universal propositions are not attributive or relational propositions about 'universals' with the falsehood that universal propositions can and must be construed as assertions that something has had a quality or a relation somewhere and somewhen. For in ' "Universals" and Occurrences' (1929), to which he refers back in this argument, he says, 'But when these two propositions ['All lots of sugar are x' and 'All lots of sugar, which are introduced into a solvent, are dissolved'] as well as proposition (1) ['All things of the character x, which are introduced into a solvent, are dissolved'] have been clearly stated, we can see that they are all different, but that nothing has been said to show that they are not occurrences. And so with "potentiality" in general: if there is in any substance something that we can call a potentiality of it, then its having that potentiality *occurs* [A.'s italics]: . . . Leaving aside potentialities then, and taking the proposition "Sugar is sweet", . . . we can hardly avoid asserting that the sweetness of sugar occurs in space and time.' Anywhen and anywhere? Or on 12 May 1902 in London and 4 June 1910 in Sydney?

Certainly universal statements are not reports of other-worldly states of affairs; but nor are they reports of this-worldly states of affairs. For we report states of affairs in the idiom of—reports of states of affairs. And this is not the idiom of universal statements. Of course there is an important connection between the jobs of universal statements and the jobs of

reports of states of affairs, just as there is an important connection between the jobs of spanners and the jobs of bolts. There would be no use for spanners if there were no bolts. But spanners are not bolts, any more than they are transcendent Bolts. The argument that spanners must be ordinary bolts *because* there aren't any transcendent Bolts would not take in a child—unless some ill-advised governess had trained him to think only of bolts when anyone mentioned implements, as 'Logic' apparently trained Anderson to think only of reports of things' having had qualities or relations when anyone mentions propositions, statements or judgements.

Anderson's logical alphabet is so exiguous that one wonders where he got his 'logic' from. Not from Aristotle, who investigates other inferences than syllogisms and has ten 'categories' where Anderson has two; not from the Stoic logicians who investigated the inferences that hinge on conjunctions; not from Boole, De Morgan, Frege or *Principia Mathematica*. One is at least forcibly reminded of Bradley, who, though he spells the world very differently, spells it out of the same penurious selection of letters. Indeed the connection is, perhaps, more than accidental. For if a philosopher allows himself only an artificially limited set of logical cupboards and pigeon-holes, then when he finds that a lot of his belongings will not readily fit into them, he is tempted to solve his storage-problem by high-handed devices. Either he *deems* his articles to be of the required sizes and shapes or, if intellectual scruples forbid this, he *deems* his cupboards and pigeon-holes to contain just those secret shelves and interior compartments which will afford the required fit. Sometimes repugnance for the latter device is the motive for resorting to the former, and then we get an Anderson. Sometimes repugnance for the former device, e.g. as practised by Mill, is the motive for resorting to the latter, and then we get a Bradley. The prudent householder has a different policy. He tries to provide his house not with the minimum quantity of storage-places that he can mention in one breath, but with the minimum number that will house the things that he wants or is likely to come to want to store. The question whether at any given stage he needs an extra shelf or cupboard or whether he needs only to be more careful and clever in packing is always an open one. What we can never say is that we have now, at last, been provided by logic (i.e. logicians) with all the cupboards and pigeon-holes that can ever be needed. Indeed, my own view is that though recent logic (i.e. logicians) has been relatively lavish in providing dockets for

propositional differences, it has not yet provided nearly enough to cover the varieties of statements and arguments employed in science, law and ordinary life. Has it (have they) provided enough even to cover the propositions of pure mathematics?

It might be said on behalf of Anderson that though he does indeed betray little interest in most of the propositional differences which have occupied contemporary and past logicians, still this indifference does not actually matter. For study of the logic of 'some', 'all', 'any', 'a', 'the', 'and', 'or', 'if', 'can', 'probably' and 'not', etc., is not required for the elucidation of the terms that have concerned Anderson (save that of 'cause'). The realist account of 'John knows so and so' or 'John's enquiringness is good' is independent of these matters, since the statements cited do not embody any of these words. But this defence will not do. For, as Anderson recognises for qualities and relations, grammatical similarities can go with logical differences, and grammatical differences can go with logical similarities. A one-verb sentence can express a disjunctive proposition, and a noun–copula–adjective sentence can express an open or variable hypothetical proposition. Why does 'John is my uncle, but he is not my mother's brother' imply that he is my father's brother? Because for John to be my uncle he must be the brother *either* of my mother *or* of my father. Yet 'John is my uncle' does not contain two clauses joined by 'or'.

Take for instance the verb 'to know'. An important part of Anderson's realism consists in his rejection of various idealist theories of knowledge and in their replacement by another, namely by the theory that 'know' signifies not a quality of the knowing person nor a quality of the thing or fact known, but a relation between the person who knows and what he knows. So, to say that John knows so and so is to assert a relational state of affairs concerning John and what he knows. And, in accordance with his general view of situations or states of affairs or facts, Anderson maintains that 'in speaking intelligibly of "knowledge", we are speaking of a certain state of affairs, the mental process which knows as connected with and distinguished from another state of affairs, mental or non-mental, which is known' ('Empiricism', 1927).

Now here, though I do not know that it matters much for his immediate ends, Anderson is quite patently wrong on one point. For 'know' is never used for a mental process or for what a mental process does. Singing and panting are processes, and if told that someone has been singing or panting, we can ask how long he has been singing or panting for and

whether he has stopped yet. But we cannot ask how long someone has spent in knowing something; nor is knowledge something which can be interrupted or accelerated or resumed. We can say that someone has known the date of Easter for weeks, but not that he has been knowing it throughout the past three minutes, or that he is (or is not) knowing it now. In these and many other ways 'know' behaves like 'own', and not like 'sing' or 'pant'.

Of course there is the moment of transition from not knowing (or owning) something to knowing (or owning) it. We learn, find out or are informed of things at specifiable moments, just as we acquire, inherit or are presented with things at specifiable moments. But as we own things from the moment of acquisition to the moment of destruction, sale, donation or distraint, so we know things from the time when we learn them to the time when we forget them or die.

To say that someone owns or knows something is not to say that at this or that particular moment something is going on. But it *is* to say that at *any* moment during the period of possession certain sorts of things *can* go on. The owner *could* give his watch away, pawn it, sell it, throw it away, take proceedings against a thief and so on; and these would be occurrences. The knower *could* tell someone the date of Easter, scold someone who got it wrong and so on; and these would be occurrences. But to say of someone that he *could* at *any* moment of a certain described period do something *either* of this sort *or* of that sort, *if* situations of this or that sort were to arise, is to use 'could', 'any', 'some', 'either–or' and 'if'. (And, of course, this expansion of 'knows' and 'owns' is only a promissory sketch. It is not nearly complex enough.)

So 'John knows the date of Easter' certainly does not report a spatio-temporal occurrence—and it does not report a transcendent (attributive or relational) state of affairs either. A theory of knowledge which is indifferent to propositional differences other than that between qualities and relations is without storage-room for those most familiar features of knowledge which control the ordinary grammar of the verb 'to know'.

The same sort of thing is clearly true of implication. To say that a given proposition 'p' implies another proposition 'q' is certainly not to affirm 'p-and-q', or even to deny 'p-and-not-q'. It is to say that it *could* not be the case that 'p, but not-q'. And whatever it is that is expressed by 'could not', at least it is not a 'sensible fact'—from which, of course, it does not follow that it is a non-sensible, Meinongian fact. For it does not report a

spatio-temporal (relational) situation or report *per impossible*, a transcendent (relational) situation.

Who knows if 'good' would not also yield to similar treatment, as it certainly does not yield to either the deflationist or the inflationist treatment in terms of qualities and relations?

(6) There remains to be mentioned one further important divergence between the course of Anderson's thinking and that of some European philosophers. When Russell came across the contradiction of the class of all classes that are not members of themselves, and then found the parallel contradictions of 'the Liar', etc., he was forced to look for a solution in some sort of theory of Logical Types. An essential part of this theory consists in the assertion that there can be grammatically well-constructed sentences, of orthodox vocabulary, which do not say anything true or false. They do not express propositions at all. Despite their perfectly regular verbal ingredients and their perfectly regular grammatical constructions, they are meaningless, nonsensical or absurd. And they are meaningless for assignable *reasons*—reasons of the kind which it has always been part of the business of logicians and philosophers to examine. This dichotomy between True-or-False (or Significant) on the one hand and Nonsensical on the other hand was, I think, regarded by Russell himself as of only local importance. It provided a way out of a few quite special embarrassments.

But Wittgenstein, as I construe him, and the Vienna Circle saw in this dichotomy the general clue that they required to the difference between science and philosophy. Science produces true (and sometime false) statements about the world; philosophy examines the rules or reasons that make some statements (like those of good scientists) true-or-false, and others (like metaphysicians' statements) nonsensical. Science is concerned with what makes (significant) statements true or else false; philosophy is concerned with what makes them significant or nonsensical. So science talks about the world, while philosophy talks about talk about the world.

In the *Tractatus* Wittgenstein maintained that the things which philosophy wanted to say could not be said. The conditions of significant (true-or-false) assertion could not be the topics of significant assertions. That sentences of different sorts observe or break the rules of significance can be shown but not stated or explained. This doctrine of the ineffability of philosophy was, perhaps, derived from Russell's Type-principle that a proposition cannot be a comment upon itself, or that what a sentence says cannot be a truth or falsehood *about* what it says.

To meet this point, Russell, in his foreword to the English translation of the *Tractatus*, pointed out that we, including Wittgenstein, obviously do succeed in saying a lot of the things which, according to Wittgenstein, were unsayable. He suggested that we should distinguish *orders* of talk. First-order talk is about the world; second-order talk is about talk about the world, and so on. No Type-rule is broken by a sentence which comments upon a sentence of a lower order than itself. So philosophical talk could be significant second-order (or higher) talk.

On this showing not all talk about talk would be philosophy. Grammarians, etymologists, teachers of rhetoric, etc., talk about uses of language, but they are not doing philosophy. Doing philosophy consists in discussing what can and cannot be *significantly* said, and not what can or cannot be elegantly or idiomatically said.

This view of philosophy proved the more acceptable since it at least seemed so nicely consonant with the actual philosophical practice of G. E. Moore. He, without saying much, if anything, in general terms *about* the procedure of philosophising, had in fact for a long time been conducting his philosophising by a special sort of examination of the ordinary uses of the words of ordinary language. Abstaining from anything like other-worldly speculations, he had been pertinaciously sifting the ways in which words like 'good', 'perceive', 'can', etc., are actually employed in our everyday (first-order) employments of them. He had been *doing* a special sort of linguistic analysis, and now the generalisation of Russell's dichotomy between True-or-False and Nonsensical made it possible to *state* in general terms what sort of a task this was. 'Nonsense' ceased (or should have ceased, if it did not) to be a vague term of abuse, and became a logicians' category.

Now statements about other statements (when they concern the satisfaction or non-satisfaction by these of the logical conditions of significance) are patently *not* reports of natural occurrences—or, of course, of supernatural occurrences or states of affairs either. So the *Gleichschaltung* of philosophical with scientific assertions appears, on this showing, to derive from obliviousness to a new and cardinal propositional difference, that between first-order and higher-order propositions, when these higher-order propositions are (not reporters', etymologists' or commentators' propositions but) assessments of the logical propriety or impropriety of the construction of the lower-order sentences.

It would not be true to say that Anderson has nothing to say about the

dichotomy between the significant and the nonsensical. Gasking (in 'Anderson and the *Tractatus Logico-Philosophicus*', 1949) makes a valuable and searching examination of the similarities and (much greater) differences between Anderson's and Wittgenstein's treatments of this subject. But it is true, I think, that Anderson does not regard the dichotomy as showing anything important about the differences between doing science and doing philosophy. And it is true, as the citations I have made in my second section show, that at least he used to think that there is no important difference between doing science and doing philosophy. Fortunately Anderson's practice of philosophising has not been governed by his theory of it. Not one of his articles contains, so far as I can see, the reports of any experiments, the culling of any statistics, the description of any laboratory techniques, the results of any mensurations, or the application of any mathematics; nor is a single prediction vouchsafed, the verification or falsification of which would be a test of the hypothesis behind it. What he actually does is what all other philosophers (even idealists) do. He debates. And he frequently debates extremely cogently. Now cogent debating, of a certain sort, is doing philosophy well, and it is not what good entomologists or astronomers or sociologists necessarily do well.

But I fear that Anderson will reply that debating consists in reporting sensible observations of the occurrences of implications. For 'logic' tells him that implications must be relations, and as they cannot be unearthly relations, they must be earthly relations.

16

LUDWIG WITTGENSTEIN

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An original and powerful philosopher, Ludwig Wittgenstein, an Austrian who finally became a naturalised British subject, came to England shortly before the First World War to study engineering. In 1912, bitten by logical and philosophical problems about the nature of mathematics, he migrated to Cambridge to work with Bertrand Russell. During that war, he was in the Austrian army and ended up a prisoner of war. In this period he wrote his one book, the famous *Tractatus Logico-Philosophicus*, of which a not quite reliable English translation was published in 1922. He taught in an Austrian village school for some time, during which he came into close philosophical touch with a few of the leading members of the Vienna Circle. In 1929 he came to Cambridge, where the importance of his ideas had been quickly recognised. In 1939 he became Professor. For part of the last war he was a hospital orderly at Guy's Hospital. In 1947 he resigned his Chair. Besides the *Tractatus*, he published only one article.

In the last twenty years, so far as I know, he published nothing; attended no philosophical conferences; gave no lectures outside Cambridge; corresponded on philosophical subjects with nobody and discouraged the circulation even of notes of his Cambridge lectures and discussions. But with his serious students and a few colleagues, economists, mathematicians, physicists and philosophers, he would discuss philosophical matters unweary-

ingly. Yet from his jealously preserved little pond, there have spread waves over the philosophical thinking of much of the English-speaking world. Philosophers who never met him—and few of us did meet him—can be heard talking philosophy in his tones of voice; and students who can barely spell his name now wrinkle up their noses at things which had a bad smell for him. So what is the difference that he has made to philosophy?

It is vain to try to forecast the verdict of history upon a contemporary. I have to try to do this for one who has for about thirty years avoided any publication of his ideas. So what I offer is a set of impressions, interpretations, partly, of mere echoes of echoes.

From the time of Locke to that of Bradley philosophers had debated their issues as if they were psychological issues. Certainly their problems were, often, genuine philosophical problems, but they discussed them in psychological terms. And if they asked themselves, as they seldom did ask, what they were investigating, they tended to say that they were investigating the workings of the mind, just as physical scientists investigate the working of bodies. The sorts of 'Mental Science' that they talked were sometimes positivistic, sometimes idealistic, according, roughly, as they were more impressed by chemistry than by theology or vice versa.

However, fifty years ago philosophers were getting their feet out of these psychological boots. For psychology had now begun to be done in laboratories and clinics, so armchair psychology became suspect. But even more influential was the fact that logical quandaries had recently been exposed at the very roots of pure mathematics. The mathematicians needed lifelines, which they could not provide for themselves. Logicians had to work out the logic of mathematics, and they could not base this logic on the findings of any empirical science, especially of so hazy a science as psychology. If logic and philosophy were not psychological enquiries, what were they?

During the first twenty years of this century, many philosophers gave another answer to this question, a Platonic answer. Philosophy studies not the workings of minds or, of course, of bodies either; it studies the denizens of a third domain, the domain of abstract, or conceptual entities, of possibilities, essences, timelessly subsisting universals, numbers, truths, falsities, values and meanings. This idea enabled its holders to continue to say that philosophy was the science of something, while denying that it was the science of any ordinary subject-matter; to champion its autonomy as a discipline, while denying that it was just one science among others; to

give it the standing of a science while admitting its unlikeness to the sciences. Thus the question 'What are philosophy and logic the sciences of?' received a new answer, though one with a disquietingly dream-like ring. It was the answer given by Frege and by Russell.

In Vienna thinkers were facing much the same question, though from an opposite angle. Whereas here it had been widely assumed that philosophy was Mental Science, and therefore just a sister science to physics, chemistry, zoology, etc., in the German-speaking world it was widely assumed that philosophy stood to the other sciences not as sister but as mother—or even governess. Somehow professors of philosophy there enjoyed such a pedagogic domination that they could dictate even to the scientists. *Of course* philosophers were the right people to decide whether the teachings of Darwin, Freud and Einstein were true.

Late in the nineteenth century Mach had mutinied against this view that metaphysics was a governess science. By the early 1920s this mutiny became a rebellion. The Vienna Circle repudiated the myth that the questions of physics, biology, psychology or mathematics can be decided by metaphysical considerations. Metaphysics is not a governess science or a sister science; it is not a science at all. The classic case was that of Einstein's Relativity principle. The claims of professors of philosophy to refute this principle were baseless. Scientific questions are soluble only by scientific methods, and these are not the methods of philosophers.

Thus, in England the question was this: What are the special virtues which the natural and the mathematical sciences lack but logic and philosophy possess, such that these must be invoked when the former find themselves in quandaries? In Vienna the question was this: Given that philosophers cannot decide scientific questions, what are the logical virtues which scientific procedures possess but philosophical procedures lack? The contrast between philosophy and science was drawn in both places. In Vienna, where the autonomy of the sciences was actually challenged, the object was to expose the pretensions of philosophy as a governess science. Here, where, save for psychology, the autonomy of the sciences was not seriously challenged, it was drawn in order to extract the positive functions of logic and philosophy. Philosophy was regarded in Vienna as a blood-sucking parasite; in England as a medicinal leech.

To Wittgenstein the question came in its English form. And so he could not be called one of the Logical Positivists. Their polemics were not his; and his quest for the positive function of logic and philosophy was not,

until much later, theirs. He was influenced by Frege and Russell, not by Mach. He had not himself felt the dead hand of professorial philosophy which cramped, and still cramps, even scientific thought in Germany and Austria. He, conversely, himself helped to fix the logical lifelines for the mathematicians.

I want to show how Wittgenstein transformed and answered what was all the time his master-question, 'What can philosophers and logicians do, and how should they do it?'

I have said that after a long imprisonment in psychological idioms, philosophy was, for a time, re-housed in Platonic idioms. But this was only a temporary asylum. For after a short period during which philosophers tried not to mind the dream-like character of the new asylum, something awoke them from the dream. Russell, in his enquiries into the logical principles underlying mathematics, found that he could not well help constructing statements which had the logically disturbing property that they were true only on condition that they were false, and false only on condition that they were true. Some of these self-subverting statements seemed to be inherent in the very basis which was to make mathematics secure. There was a major leak in the dry dock which Frege and he had built for mathematics.

Russell found a patch for the leak. Underlying the familiar distinction between truth and falsehood, there is a more radical distinction between significance and meaninglessness. True and false statements are both significant, but some forms of words, with the vocabulary and constructions of statements, are neither true nor false, but nonsensical—and nonsensical not for reasons of wording or of grammar, but for logical reasons. The self-subverting statements were of this sort, neither true nor false, but nonsensical simulacra of statements. Notice, it is only of such things as complex verbal expressions that we can ask whether they are significant or nonsense. The question could not be asked of mental processes; or of Platonic entities. So logic is from the start concerned, not with these but rather with what can or cannot be significantly said. Its subject-matter is a linguistic one, though its tasks are not at all those of philology.

In Wittgenstein's *Tractatus* this departmental conclusion is generalised. All logic and all philosophy are enquiries into what makes it significant or nonsensical to say certain things. The sciences aim at saying what is true about the world; philosophy aims at disclosing only the logic of what can be truly or even falsely said about the world. This is why philosophy is

not a sister science or a parent science; that its business is not to add to the number of scientific statements, but to disclose their logic.

Wittgenstein begins by considering how a sentence, a map, a diagram or a scale-model can represent or even significantly misrepresent the facts. The isolated words 'London' and 'south' are not true or false. Nor can a single dot on a sheet of paper be an accurate or inaccurate map. The sentence 'London is north of Brighton' is true. The same words, differently arranged as 'Brighton is north of London', make a false statement. Arranged as 'South is London of Brighton' they make a farrago which is neither true nor false, but nonsense. For dots on paper to represent or misrepresent the direction of Brighton from London, there must be a dot for each town and they must be set out in accordance with some convention for points of the compass. For a statement, map or diagram to be true or false, there must be a plurality of words or marks; but, more, these bits must be put together in certain ways. And underlying the fact that the truth or falsity of the statement or map partly depends upon the particular way in which its bits are arranged, there lies the fact that whether a significant statement or map results at all, depends wholly on the general way in which the bits are put together. Some ways of jumbling them together are ruled out. What rules rule them out?

In the *Tractatus* Wittgenstein came to the frustrating conclusion that these principles of arrangement inevitably baffle significant statement. To try to tell what makes the difference between significant and nonsensical talk is itself to cross the divide between significant and nonsensical talk. Philosophising can, indeed, open our eyes to these structural principles, but it cannot issue in significant statements of them. Philosophy is not a science; it cannot yield theories or doctrines. None the less it can be skilful or unskilful, successful or unsuccessful. It is in pursuing the activity itself that we see what we need to see. Rather like learning music or tennis, learning philosophy does not result in our being able to tell what we have learned; though, as in music and tennis, we can show what we have learned.

Now it is true that philosophical clarity is achieved in the acts of appreciating arguments rather than in propounding theorems. But it is false that all philosophical talk is nonsensical talk. Wittgenstein had himself said very effective things, and talking effectively is not talking nonsensically. What had brought him to this frustrating conclusion? When he wrote the *Tractatus*, he was, I think, over-influenced by his own analogies between saying things and making maps, diagrams and

scale-models. Certainly, for marks on paper to constitute a temperature chart, or for spoken words to constitute a significant statement, the dots and the words must be arranged according to rules and conventions. Only if the zigzag of dots on the nurse's graph-paper is systematically correlated with the thermometer readings taken at successive moments of a day, can it represent or even misrepresent the alterations in the patient's temperature. Only if words are organised according to a number of complex general rules does a true or false statement result.

Suppose we now asked the nurse to depict on a second sheet of graph-paper, not the course of the patient's temperature, but the rules for representing his temperature by dots on graph-paper, she would be baffled. Nor can the rules and conventions of map-making themselves be mapped. So Wittgenstein argued in the *Tractatus* that the philosopher or logician is debarred from saying what it is that makes things said significant or nonsensical. He can show it, but not tell it. After the *Tractatus* he realised that though saying things does resemble depicting things or mapping things in the respect for which he originally drew the analogy, it does not resemble them in all respects. Just as the nurse can tell, though not depict, how the temperature chart represents or misrepresents the patient's temperature, so the philosopher can tell why, say, a scientist's statement makes or does not make sense. What alone would be absurd would be a sentence which purported to convey a comment upon its own significance or meaninglessness.

The *Tractatus* has two distinct but connected aims. The first, which I have crudely sketched, is to show both what philosophy is not, namely any sort of a science, and what it is, namely an activity of exploring the internal logic of what is said, for example, in this or that scientific theory. The second, which I shall not even try to sketch, is to show what sort of an enquiry Formal Logic is. This brings me to a general point about the *Tractatus*. Wittgenstein's first interest had been in the logic of mathematics and thence in the logical paradoxes which were the big leak in the dry dock that Frege and Russell had built. He was, therefore, equipped and predisposed to squeeze whatever can be significantly said into the few statement-patterns with which the logic of mathematical statements operates. He used its terminology, its codes and its abacus-operations in his task of exploring various philosophical issues, and, above all, his own master-issue, that of the nature of philosophising itself. In consequence, the *Tractatus* is, in large measure, a closed book to those who lack this

technical equipment. Few people can read it without feeling that something important is happening; but few experts, even, can say what is happening.

But this is not the end of the story. Maybe it is only the preface. For, after lying fallow for some years, Wittgenstein returned to philosophy. His teaching in this period differs markedly from that of the *Tractatus*; it even repudiates parts of the *Tractatus*.

First, he no longer forces all expressions into the favoured few patterns of the logic of mathematics. With this goes a revolt against moulds of any sorts. The rubrics of logical systems and the abstract terms of philosophical schools are like the shoes of Chinese ladies, which deformed their feet and prevented them from walking on them. Philosophical elucidation is still inspection of expressions, but it is no longer inspection through the slots of a logician's stencil or through the prisms of a scholastic classification-system. His diction has reverted from that of a Russell discussing esoteric matters with mathematicians to that of a Socrates discussing everyday ideas with unindoctrinated young men. Nor does he now elucidate only the propositions of the sciences. Like Moore, he explores the logic of all the things that all of us say.

Next, though I think that his master-problem is still that of the nature, tasks and methods of the philosophical activity, he no longer thinks that philosophers are condemned to trying to say the unsayable. But he now avoids any general statement of the nature of philosophy, not because this would be to say the unsayable, but because it would be to say a scholastic and therefore an obscuring thing. In philosophy, generalisations are unclarifications. The nature of philosophy is to be taught by producing concrete specimens of it. As the medical student learns surgery by witnessing and practising operations on dead and on live subjects, so the student of philosophy learns what philosophy is by following and practising operations on particular quandary-generating ways of talking. Thus Wittgenstein would rove, apparently aimlessly because without any statement of aim, from one concrete puzzle to its brothers, its cousins, its parents and its associates, demonstrating both what makes them puzzling and how to resolve them—demonstrating, but not telling; going through the moves, but not compiling a manual of them; teaching a skill, not dictating a doctrine.

One favourite procedure of his might be called the 'tea-tasting method'. Tea-tasters do not lump their samples into two or three comprehensive

types. Rather they savour each sample and try to place it next door to its closest neighbours, and this not in respect of just one discriminable quality but along the lengths of various lines of qualities. So Wittgenstein would exhibit the characteristic manner of working of a particular expression by matching it against example after example of expressions progressively diverging from it in various respects and directions. He would show how striking similarities may go with important but ordinarily unremarked differences, and how we are tempted to lean too heavily on their similarities and hence to be tripped up by their latent differences.

For philosophers do not examine expressions at random. The quest for their internal logic is forced upon us by the fact that we find ourselves already caught up in unforeseen entanglements. Why do we slide into quandaries? Let me invent an example. We find ourselves talking as if, like a train, so time itself might one day slow down and stop. We divide a train into coaches and coaches into compartments. We divide a month into weeks and weeks into days. When a train is passing me, some coaches are beyond me, some are still to come, and one compartment of one coach is directly abreast of me. I look at its occupants through the window. Surely time is like this. Last week has gone, next week is still to come, but I can exchange glances with the occupants of Now. So, as trains always slow down and stop somewhere, what makes time puff on so tirelessly? Might not Now be the last compartment of the last coach? Yet surely not; there would still be something behind it, if only the empty wind. You see that it is tempting, but also that it smells like nonsense to speak of the last compartment of time. Why may we say some things about time which are very much like some things that we legitimately say about trains, when to some of the proper corollaries of what we say about trains there correspond no proper corollaries about time? To answer this question, we should have to examine the functioning of whole ranges of things that we say about trains, rivers and winds; about moving shadows, rainbows and reflections; about perpetual motion machines, stars, clocks, sundials and calendars; about the series of numbers, days of the week and minutes of the day. And then we may see why we slid and no longer incline to slide from the proper corollaries of familiar dictions about trains to corresponding corollaries of somewhat similar dictions about time. We see that we had over-pressed certain analogies between ways of talking; and that we were so dominated by a favourite model, that we had gone on using it where it could no longer work. And now we know, in a way, what time is,

though there is no shorter or better way of saying what time is than by going through again the same sort of process of linguistic tea-tasting.

I must conclude. Wittgenstein has made our generation of philosophers self-conscious about philosophy itself. It is, of course, possible for a person to be very thoughtful about the nature and methods of an activity, without being made any the better at performing it. The centipede of the poem ran well until he began to wonder how he ran. Maybe we have been made a bit neurotic about the nature of our calling. But Wittgenstein's demolition of the idea that philosophy is a sort of science has at least made us vigilant about our tools. We no longer try to use for our problems the methods of arguing which are the right ones for demonstrating theorems or establishing hypotheses. In particular we have learned to pay deliberate attention to what can and cannot be said. What had, since the early days of this century, been the practice of G. E. Moore has received a rationale from Wittgenstein; and I expect that when the curtain is lifted we shall also find that Wittgenstein's concrete methods have increased the power, scope and delicacy of the methods by which Moore has for so long explored in detail the internal logic of what we say.

17

REVIEW OF LUDWIG WITTGENSTEIN: 'REMARKS ON THE FOUNDATIONS OF MATHEMATICS'

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The late Ludwig Wittgenstein was a deep and influential philosopher of science, yet outside the circle of professional philosophers little is known of the man and his work. This book is the second collection of his papers to be published since his death. The editors of *Scientific American* have asked me to take this occasion, not to review the book, which in any case is too specialised for the general reader, but briefly to describe who Wittgenstein was and what he did.

First for the man.

He was born in 1889 in Austria and died in 1951 in England. He was of Jewish origin, though he was brought up a Roman Catholic. He, with the rest of his family, was intensely musical. His father was a wealthy steel magnate. He himself was trained as an engineer, and was engaged in aerodynamical researches in England when in 1911 and 1912 he became perplexed about the logical and philosophical foundations of mathematics. Advised, apparently, by the German mathematician Gottlob Frege, he went to Cambridge to study under the author of *Principles of Mathematics*, Bertrand Russell.

During the First World War he served in the Austrian army, and ended up a prisoner of war in Italy. His rucksack contained the manuscript of the only book of his that was published during his lifetime, the *Tractatus Logico-Philosophicus*. This was published in 1922, with the German text faced by an unreliable English translation. It contains an introduction by Russell, but Wittgenstein disapproved of this. A revision of the translation should appear fairly soon. Wittgenstein became professor at Cambridge in 1939, succeeding G. E. Moore, and he resigned in 1947.

He was a spellbinding and somewhat terrifying person. He had unnervingly piercing eyes. He never used hackneyed expressions—not that he strove after originality of diction, but he just could not think in clichés. To his own regret, he could not help dominating his associates. He remorselessly excommunicated persons of whom he disapproved.

He loathed being connected with academic philosophers, and he avoided academic chores. After 1929 he attended no conferences; he did no reviewing for journals; only once did he attend a philosophical meeting in Oxford; he was inaccessible to visiting philosophers; he read few, if any, of the philosophical books and articles that came out during his last twenty-five years.

He was like Socrates in rigidly separating the philosopher from the sophist; unlike Socrates in shunning the market-place; like Socrates in striving to convert his pupils; unlike Socrates in feeling the need to conserve his genius by insulation. He was hermit, ascetic, guru and *Führer*.

What of the philosopher?

He had no formal training in philosophy. His ferments came from his own insides. I do not know just what shape his initial perplexities about mathematics took. Anyhow, he consulted Frege and Russell, and studied their logico-mathematical writings; the central problems of his *Tractatus*, though not the same as theirs, were clearly reactions to their doctrines.

Frege and Russell tried to show that all pure mathematics derives from the completely general truths of formal logic, i.e. that these truths stand to arithmetical truths as Euclid's axioms to his theorems. But what was the point of trying to demonstrate this continuity between logic and arithmetic? Surely the truths of mathematics are as well established as anyone could demand, so what is gained, except for tidiness, by underpinning them with an ulterior foundation?

At that time reflective mathematicians were in trouble. Their science seemed all limbs and no body. The very vigour of these branches was

generating cross-purposes between them. The notion of number itself seemed to take as many shapes as there were branches of the science of number. Mathematics felt like a caravanserai, not a house.

Its external relations with other sciences also were precarious. John Stuart Mill had likened the truths of mathematics to those of the natural sciences: they are generalisations from experience, susceptible of overthrow by unexpected exceptions. It would be much more surprising to find an exception to 7 + 5 = 12 than to find a black swan, but only much more. Which is absurd. For another thing, many thinkers, when asked 'Of what entities is mathematics the science?' were giving a psychological answer. The physical world contains countless sorts of things, but it does not contain numbers. There are nine planets, and the earth has one moon. But you cannot see 9 or 1. So, if numbers are not physical things, what else is there for them to be, save ideas in our minds or thoughts or something of the sort? But then arithmetic ought to make allowances for the differences between what goes on in lunatic and in sane minds; in visualisers' and in non-visualisers' minds, and so on. Which is absurd.

Because mathematics needed, internally, co-ordination between its members and, externally, autonomy from the inductive sciences, especially psychology, its affiliation to logic felt like a rescue operation. Mathematics could be saved from internal discord and from external pressures by becoming part of the unchallengeable science of logic.

But what sort of science is this? What sort of truths are the truths of logic? What sorts of information does logic give us about what sorts of entities? That is, I think, the central problem of Wittgenstein's *Tractatus Logico-Philosophicus*.

The truths and falsehoods of the natural sciences are truths and falsehoods about what exists and happens in the world. Their truth or falsehood depends upon what is the case with things in the world. But the truths of logic give us no information about the world. 'Either it is raining or it is not raining' exemplifies a logical truism, but it tells us nothing about the weather. It is true whatever the weather. 'Socrates is mortal' gives us important information or misinformation about Socrates, but '*If* all men are mortal and Socrates is a man, *then* he is mortal' gives us an applied logical truth, which is true whether or not he is mortal.

The truths of the natural sciences are factual truths, while those of logic are purely formal. Their truth is neutral between the world as it is and as

it might have been. This formal nature of logical truths shows itself in another way. The truism 'Either it is raining or it is not' remains true if for 'raining' we substitute 'snowing', 'freezing' or anything you please. For any proposition whatsoever, either it or its negative is true. The force of 'either . . ., or not . . .' is indifferent to the material fillings of the clauses that it links, so long as the clauses are the same. Hence truths of logic can be expressed most cleanly if we algebraise away all material elements like 'Socrates', 'mortal' and 'it is raining'. This leaves, for example, 'For any *p*, either *p* or not-*p*'.

Thus logic is unconcerned with the actual truth or falsity of the factual statements which can be draped on its skeletons. Nonetheless logic is essentially concerned with the truth-or-falsity of these statements, since it has to work out how the truth or falsity of one *would* follow, if another *were* true or *were* false. That Jack went up the hill would have to be true *if* Jack and Jill went up the hill; and from the falsity of 'Jack went up the hill' would follow the falsity of 'Jack and Jill went up the hill'.

Well then, why should we not answer the original problem by saying that the subject-matter of logic consists of truths-or-falsehoods, and that it has to discover in them their formal properties which secure that one would be true if another were true? But then what sorts of entities are truths-or-falsehoods, and what sorts of properties are these formal properties?

When I say 'It is raining', my words convey something to you. You understand them even though you do not know that it is raining. They make sense, even if it is not raining. So the actual state of the weather is one thing; the truth-or-falsehood that it is raining is something else. In getting the meaning of my words, you are getting not what the state of the weather is, but what-it-is-being-represented-as-being. But what enables expressions to represent things as they are, or as they are not? What enables a complex of symbols to *mean* something *vis-à-vis* some actual matter of fact? Consider a simple map representing, truly or falsely, the relative positions and distances of three towns: A, B and C. The dot 'A' is one inch higher on the page than the dot 'B', and this is two inches higher than the dot 'C'. This map might tell you that the town A is north of B, which is north of C, and that B is 20 miles from C and 10 from A. How does it do this? By an understood code by which lettered dots stand for towns, the top of the page for north and an inch for 10 miles. It is the way in which the dots are situated on the page that says how the towns are related to one another on the ground. In this case the map, if true, is

in certain respects photographically like the corresponding stretch of ground. But with a different code the same dots might represent or misrepresent the heights of three peaks, or the degrees below boiling point of three saucepans. Representation can, but need not, be photographic. The notes played by the musician are not *like* the black marks on his score, yet the arrangement of the latter, by a complex code, may faithfully represent the arrangement of the former.

The 'codes' which enable different arrangements of words to represent different states of affairs are enormously complicated, and they vary among different tongues. In English, if you wish to say that Brutus killed Caesar you must put 'Brutus' before the verb and 'Caesar' after it. Not so in Latin, which achieves the same result by different word terminations. But without applying some syntactical rule or other you cannot say anything, not even anything false. Symbol-structures can represent and misrepresent the structures of actual states of affairs because, though the representing structure is not usually *like* the represented structure, they are still structurally analogous to one another. A sentence has a meaning if its syntax *could* be the structural analogue of an actual state of affairs, even though, when false, it actually has no such factual counterpart. Caesar did not kill Brutus, but 'Caesar killed Brutus' makes sense, since there is, so to speak, room in reality, though unfilled room, for this uncommitted murder.

Not all complexes of words or dots or gestures convey truths or falsehoods. An unorganised jumble of words or dots makes no sense. Even a sequence of words with an orthodox grammar can make nonsense. Lewis Carroll concocted many such sentences; for example, 'The Cheshire cat vanished leaving only her grin behind her.' Sometimes serious thinkers inadvertently construct senseless sentences. Early geometricians seriously held that Euclidean points are round. A truth-or-falsehood, then, is an organised complex of symbols representing, by analogy of structure, a counterpart actual-or-possible state of affairs. It is, for example, a sentence, 'in its projective relation to the world'. To find out whether it is actually true or actually false we have to match it against its should-be counterpart state of affairs in the world.

Already we can see how Wittgenstein's account of what it is to make sense, that is, to be true-or-false, led to the famous principle of verifiability, by which the logical positivists ostracised as nonsensical the pronouncements of metaphysicians, theologians and moralists. Observation and

experiment are our ways of matching the propositions of, say, astronomy against the stellar facts. Where observation and experiment are excluded, our pretended truths-or-falsehoods have no anchorage in facts and so say nothing. They are nothing but disguised gibberish.

What of the truths of logic, the status of which it had been Wittgenstein's main task to fix? Are these also disguised gibberish? Or are they salved by being classed with the most general truths of natural science? Wittgenstein steers between this Scylla and this Charybdis.

An everyday 'either-or' statement, like 'Either Jack climbed the hill or Jill did', leaves it open which climbed the hill; but it still rules out something that might have been the case, namely, the climbing of the hill by neither of them. But if we ask of an 'either-or' truism of logic like 'Either Jack climbed the hill or he did not'; what is ruled out by *this* assertion?, we see that the only thing ruled out is Jack's neither climbing nor not climbing the hill. And this is not something which might have been but just happens not to be the case. An ordinary factual assertion gives the 'yes' or the 'no' answer to a question; it invites us to select the one and to forswear the other. But a truth of logic gives us nothing forswearable to forswear, and so nothing selectable to select. It is factually empty, or 'tautological'.

It does not, however, follow that the truths of logic are of no use simply because they are uninformative. They serve to show up, by contrast with their own absolute hospitality, the ways in which ordinary statements convey, by their relative shut-doored-ness, positive information or misinformation.

The truths of logic, then, are not nonsensical, though they are empty of information or misinformation. Their business is to *show* us, by evaporation of content, how our ordinary thoughts and assertions are organised.

I pass over Wittgenstein's accounts of the connections and differences between logic and mathematics and between logic and mechanics, important though these are for showing up, by contrast, the positive nature of logic. But I must not pass over his account of the relations between logic and philosophy. For, as his title *Tractatus Logico-Philosophicus* hints, his book was secondarily concerned to fix the status of philosophy. What sorts of things can philosophers tell us—philosophers as distinct from logicians and from scientists? Are the truths of philosophy factual or formal truths?

Earlier philosophers, if they tried at all to place philosophy, had tended to treat it either as psychology or as non-empirical cosmology. But Russell

and others realised that philosophy was neither a natural science nor yet a supernatural science. Russell had emphasised the close connection between logic and philosophy by treating all seriously philosophical questions as problems for 'logical analysis', as if logic supplied the lines of latitude and longitude, while philosophy had to fill in the geographical detail.

In partly the same way Wittgenstein, having separated off all philosophical from any scientific questions, describes the positive function of philosophy as 'elucidatory'. Its function is to disclose that logical architecture of our ordinary and scientific thoughts which our vernaculars conceal but which the designed symbolism of logic would expose. But now there breaks out a seemingly disastrous difference between logic and philosophy. The formulae of logic, though they tell us nothing, still show us, so to speak, at their limit the positive force of the 'ors', 'ands', 'alls' and so forth on which our ordinary truths and falsehoods are built. But philosophical pronouncements are in a worse state, since their elucidatory mission is to *tell* us what sort of sense or nonsense belongs to the propositions of the sciences and of daily life; and this is not the sort of thing that can conceivably be told. The meanings, that is, the truths or falsehoods that we express, cannot then be lifted out of their expressions. We can talk sense, but we cannot talk sense about the sense that we talk.

Consider again my map in which the situations of three dots on the page told you, truly or falsely, the situations of three towns. Now I ask you to draw another map which is to tell me not about things on the ground, but about the information or misinformation conveyed by the first map. It is to tell me whether the first map is accurate or inaccurate, and especially it is to tell me the cartographical code by which the three original dots represent the compass bearings and distances of the towns. You will promptly protest that you cannot make a map of what another map says or of how it says it. What an ordinary map alleges about the earth's surface is not another bit of that surface and so a second map could not map it. The significance-conditions which an ordinary map exemplifies are not *stated* by these or any other maps.

Similarly, we normally know when a sentence expresses a truth-or-falsehood, and when it is nonsensical. We read the composition of an actual-or-possible state of affairs out of the composition of the sentence. But we are debarred from *stating* this correlation. Attempts to state

it would be attempts to stand outside the significance-conditions of statements. They would therefore break these conditions, and so be nonsense.

Philosophical elucidation advances only over the ruins of its attempted articulations. The sort of clarity that we seek we achieve in becoming conscious of what makes us stammer. Critics quickly pointed out that Wittgenstein managed to say many important and understandable things. So perhaps the language of maps has limitations from which the language of words is exempt; and perhaps the notion of sense is wider than the notion of truth-or-falsehood to empirical fact.

Wittgenstein left many manuscripts which are now in process of being published. The first book to be so published was his *Philosophical Investigations*. This has the German text faced by a quite good English translation.

Philosophical Investigations differs from the *Tractatus* in presentation, subject and direction. The *Tractatus* consists of a chain of sentences or short paragraphs, prefaced by numerical and decimal index-numbers signalling both the train of the argument and the relative weights in it of the successive items. Each sentence seems to be the product of an almost Chinese process of pruning and recasting. Many of them mystify, but the reader cannot get them out of his head. In many stretches the *Tractatus* presupposes familiarity with mathematical logic. The *Philosophical Investigations* is more like a conversation. It is a dialogue between the author and his own refractory self, and it presupposes no technical sophistication. It is split up into relatively long paragraph-sections, the continuities between which are often hard to see. Indeed, they are not always there. Unfortunately the book contains no aids to the reader in the shape of table of contents, index or cross references.

Notoriously the *Philosophical Investigations* throws overboard some of the cardinal positions of the *Tractatus*. Some people assume that this exempts them from trying to understand the *Tractatus*. This is a mistake, since a philosopher jettisons what he has taught himself to do without, and we need just the same teaching.

Moreover, a great deal of the *Tractatus* survives, both in the later Wittgenstein and in us too. It comes natural to us now—as it did not thirty years ago—to differentiate logic from science much as Wittgenstein did; it comes natural to us not to class philosophers as scientists or *a fortiori* as super-scientists; it comes natural to us to think of both logic and

philosophy as concerned not with any ordinary or extraordinary kinds of *things*, but with the meanings of the expressions of our thoughts and knowledge; and it is beginning to come natural to us, when we reflect about sense vs. nonsense, to take as the units of sense what is conveyed by full sentences, and not what is meant by isolated words, that is, with what is *said*, and not with what is, for example, *named*.

How does the later differ from the earlier Wittgenstein? First, his central problem is different. He is no longer exercised about the status of logic. It is philosophy now that is pestering him for justice. Next he had in the *Tractatus* been scanning the notions of sense and nonsense through the perforated screen of logic. Through its apertures he could see only elementary atoms of truth and falsehood being combined into molecular truths and falsehoods by the operations of 'and', 'or' and 'not'. The only discernible differences between sayables were in their degrees and patterns of compositeness. All their other differences had been algebraised away. But now he forsakes this screen. He examines those differences between sayables which will not reduce to degrees of compositeness. Where he had examined the algebraised skeletons of statements in which only the logical constants were left functioning, now he watches the functioning of the live expressions with which we say real things. One thing that he quickly remarks is this. Not all sayables are truths or falsehoods. The logician attends only to assertable premisses and conclusions. But not all saying is asserting. There is questioning, advising, entreating, ordering, reassuring, rebuking, joking, warning, commiserating, promising, deploring, praising, parodying. We talk a lot to infants and dogs, but we do not make statements to them.

In the *Tractatus* we were told, in effect, that only those sentences made positive sense which could be the premisses or conclusions of a bit of natural science. In the *Philosophical Investigations* the door is opened to anything that anyone might say. We are home, again, in the country of real discourse.

The central notion of sense or meaning has correspondingly thawed. In the *Tractatus* truths-or-falsehoods seemed to be icicles of printer's ink; and their co-ordination with states of affairs in the real world resembled the congruence between the structures of two crystals. But sentences are normally things said, not written, by one person to another. So now Wittgenstein constantly discusses such questions as 'How do children, in real life, actually learn to understand this or that expression?' and 'How would we teach a savage to count, or tell the time?' Talking sense and

following the sense talked by others are things that we have learned how to do; so the notion of sense comes out of the fog if we constantly ask just what we must have learned, and just how we must have learned it in order to be able to communicate. Most of Part I of the *Philosophical Investigations* is concerned with questions about sense, understanding, grasping, mastering, interpreting, etc.

One device that Wittgenstein constantly uses is that of exploring imaginary situations in which people have to think up and teach ways of communicating. A builder, for example, wants his inarticulate assistant to pass him bricks and slabs. How would he teach him to distinguish between the orders 'Brick' and 'Slab'? How would he teach him to bring *two* or *five* bricks, that is, to understand number-words? Wittgenstein calls these imaginary lingo-creations 'language-games'. This is unfortunate because many readers think he implies that talking is a sort of *playing*. In fact the central idea behind the label 'language-game' is the notion of *rules*. Learning to communicate is like learning to play chess or tennis in this respect, that in both we have to master written or unwritten rules—and there are many different, but interlocking, sorts of rules to be learned in both. The chess-player has had to learn what moves are allowed, what moves in what situations would be tactical mistakes, and even what moves in what situations would be unsporting. A crude generalisation of Wittgenstein's new account of sense or meaning is that the meaning of an expression is the rules for the employment of that expression; that is, the rules licensing or banning its co-employment with other expressions, those governing its effective employment in normal and abnormal communication-situations, and so on. The dynamic notion of rules to be mastered has replaced the notion of an imposed structural congruence.

With his new notion of meaning, Wittgenstein is in a position to say new things about the philosopher's task of meaning-elucidation. But in the main he avoids trying to give any general account of what sort of task this is, or why and when it needs to be done, though there are passages in which he does enigmatically give such an account. Rather, especially in Part II of *Philosophical Investigations*, he tries to demonstrate in examples what philosophical quandaries are like, how to get out of them and what sideslips of thought get us into them. He is trying to teach us methods of operation, rather than give us the answer to a question in an examination.

I do not think that anybody could read the *Philosophical Investigations* without feeling that its author had his finger on the pulse of the activity of philosophising. We can doubt whether his hinted diagnosis will do; not that he has located, by touch, that peculiar and important intellectual commotion—philosophical puzzlement.

18

G. E. MOORE

Reprinted from 'The New Statesman', 1963, by permission of the publishers

Between 1919 and 1953 G. E. Moore entered a number of philosophical reflections into notebooks, most of which he himself entitled 'Commonplace Book'. Dr C. Lewy has now published these reflections in chronological order and with indication of their approximate dates of composition.[1]

Several of the entries seem to be the outcomes of contemporary discussions with Lewy, von Wright, Malcolm and others; several seem to be the outcomes of Moore's study of books and articles by Russell, Johnson, Frege, Wittgenstein and others. In general they seem to be consolidations of previously half-consolidated ideas, further hammer-blows on nails already pretty well home. They are not confessions, heart searchings or gropings in the dark. They tell us no secrets. Moore would not have been the philosopher he was if there had been any secrets to tell.

Of the 190 odd entries a few run to half a dozen pages; most to a page or two; and quite a lot are only half a page or less in length.

In subject-matter their distribution is of some interest. Less than ten of the entries have anything to do with Ethics; elaborations of points in the theories of Time and Sense-perception are very numerous; but nearly half

[1] G. E. Moore: *Commonplace Book, 1919–1953*, edited by C. Lewy (George Allen and Unwin, 1962).

the entries are discussions of issues well inside the field of Logical Theory, and of these a score, all belonging to the last decade of the notebooks, are investigations of the notion or notions of *if . . ., then*. The entries will be interesting, though not often exciting, to researchers into Moore's philosophy, as well as to philosophers and logicians tackling tool-shop problems continuous with Moore's. They will not, unless for occasional essays, be of much use to students, who should consume their Moore, with their other philosophers, in large mouthfuls. To readers whose interests are limited to the personalities of philosophers Moore's *Commonplace Book, 1919–1953* will have no appeal at all. Moore is working, not conversing.

Moore's concentration, in his notebooks, on logicians' problems sets us considering this question. What were the affiliations between Moore's philosophical thinking and the work of the logicians? In his 'Autobiography' in Schilpp's *The Philosophy of G. E. Moore*, Moore acknowledges at length and with emphasis the great debts he owes to the logical writings and lectures of Russell, as well as to personal discussions with him. He also pays tribute to the influences of Johnson, Ramsey and Wittgenstein. Some of the entries in this *Commonplace Book* are careful examinations of things written by Frege. But despite this tutelage Moore himself initiated nothing in the theory or in the techniques of Formal Logic, save for some helpful distinctions and non-technical expositions. He would not have expected or hoped that his name should be mentioned in the Kneales' *The Development of Logic*.

What Moore did was to import into the ratiocinations of philosophy the form-discriminations that had newly been elaborated *in abstracto* by the logicians. In this respect, his vocation, equipment, rigorousness and rigidities were those of a Twentieth-Century Schoolman. As the bones and the sinews of Aristotle's logic shaped and sometimes misshaped the metaphysics, ethics, psychology and biology of Aristotle and the Aristotelians, so the new Schemata of mathematical logic brace and sometimes cramp Moore's epistemological, ethical and semantic thoughts. It is not that Moore is an algebraiser in philosophy. He employed the logicians' new inference-patterns as his stencils, not as his fabric. It is a major part of the philosopher's task to select and disencumber just these natural and familiar expressions which are competent to carry precisely determined premiss-burthens and conclusion-burthens. Theory-tangles can and must be resolved by rendering completely unequivocal and completely specific the different questions to which answers are required, and by demarcating

exactly what propositions are and are not entailed by all the suggested answers to them. To find the implications and compatibilities of one proposition is to distinguish its force from the forces of the adjacent propositions which might be confused with it or be wrongly treated as part and parcel of it. The philosopher has not to discard his native dictions, but only to take all possible pains to unclutter their inference-edges.

It may be that Moore relied too docilely on the new surgical tools, which had been cut for duties considerably different from those which he imposed upon them; and it may be that Moore's diagnoses of the *aporiai* to be resolved were too much controlled by the operations which these tools enabled him to perform. If so, it follows that Moore's canons of argumentative precision and cogency need to be emancipated from these controls, and not that philosophy needs to be emancipated from his standards.

Like Socrates, Moore was apt to suppose that his analytic operations would terminate, if ever successful, in some analyses or definitions of composite concepts. But, like Socrates, he produced very few such analyses. Nor does what we have learned from him consist in a repertoire of such analyses. He taught us to try to assess and how to assess the forces of the expressions on which philosophical issues hinge. It is a not very important accident that he, with many of his critics and champions, did not fully realise that, before these forces have been assessed, definitions can do no good, and after they have been assessed there is no more good for them to do, save the little good that mnemonics do. In his 'Autobiography' (p. 33) Moore announces gladly and unenviously the drastic reorientation that Wittgenstein was giving to philosophical enquiries and methods. He realised, without any resentment, that the tide of interest was ebbing from the estuaries in which he had so pertinaciously dredged. He does not mention, and probably never mentioned to himself, how much Wittgenstein's sails needed the keel and the ballast that Moore provided.

For some of us there still lives the Moore whose voice is never quite resuscitated by his printed words. This is the Moore whom we met at Cambridge and at the annual Joint Session of the Mind Association and the Aristotelian Society. Moore was a dynamo of courage. He gave us courage not by making concessions, but by making no concessions to our youth or to our shyness. He treated us as corrigible and therefore as responsible thinkers. He would explode at our mistakes and muddles with just that

genial ferocity with which he would explode at the mistakes and muddles of philosophical high-ups, and with just the genial ferocity with which he would explode at mistakes and muddles of his own. He would listen with minute attention to what we said, and then, without a trace of discourtesy or courtesy, treat our remarks simply on their merits, usually, of course, and justly inveighing against their inadequacy, irrelevance or confusedness, but sometimes, without a trace of politeness or patronage, crediting them with whatever positive utility he thought that they possessed. If, as sometimes happened, he found in someone's interposition the exposure of a confusion or a fallacy of his own, he would announce that this was so, confess to his own unbelievable muddle-headedness or slackness of reasoning, and then, with full acknowledgement, adopt and work with the new clarification. Good arguments, no matter whose, were there to be employed by everyone; bad arguments, no matter whose, had to be eradicated with blasting-powder.

Himself free from both vanity and humility, he saw no reason, and he taught us to see no reason, why matters of personal prestige or sensitiveness should be considered at all. He never pulled his punches, but he never bullied; he tore to pieces our bad arguments, but he never sneered at us. Sometimes he applauded and availed himself of our valid points; but he never complimented us. He never tried to score. He never cheated. He had no philosophical gospel to broadcast and no philosophical party to campaign for. His own darling philosophical cruces were not very numerous, and their cardinal teasers often seemed to us factitious. We came across few theses which we could cite as Moore's doctrines, and we felt no special tug to accept those that we could cite. None the less we left for home feeling full of fight, but also feeling firmly resolved to put better edges on our arguments next time.

He reminded one, in quick succession, of a Duns Scotus, a ton of bricks and one's farmer uncle on a holiday. Before quite wearied by the ant-like labours that he squandered on obviously unrewarding side-issues, we would be startled out of our skins by his indignant repudiation of a suggested *via media*; two minutes later we would find him radiating geniality and looking slightly naughty. What did he teach us? To care more whether our bridges were soundly built than for anything else whatsoever.

19

REVIEW OF 'SYMPOSIUM ON J. L. AUSTIN'

Reprinted from 'The Listener', 1970, by permission of the editor

How did English-speaking philosophy get its linguistic slant?

(1) The enquiries of Frege and Russell into the foundations of mathematics met obstructions which demanded new logical tools. But seventy years ago logic and philosophy still lisped in Locke's idioms: both needed to be de-psychologised. Syllogisms and equations could no longer be dissected into what associations of ideas are associations of. Out of what non-mental things, then, are our premisses and conclusions made? Of Platonic entities? Yet 'Socrates is mortal' is true of Socrates, not of any deathless proxy for him.

Frege showed that what, for instance, a subject-term expresses or conveys is not the object, if any, that it designates. 'Evening Star' and 'Morning Star' convey different Senses, though designating the same planetary Object. '$\sqrt{289} = 17$' says more than '$17 = 17$'. What a truth or falsehood is composed of is not the objects that it is true or false of.

Russell showed that for a denial of existence to be true—for instance, 'the island of Atlantis never existed'—its nominative must be significant and must not have an island corresponding to it. What it signifies is not any island. He also showed, what proved crucial, that some nominatives, like 'the last even number', cannot denote. For assignable reasons of logic

some grammatically permissible subject-phrases are nonsense; and some quasi-statements cannot significantly be even denied as false.

Wittgenstein generalised the issue. Sense/nonsense questions undercut any questions about things or happenings. Logic and philosophy, being concerned with meanings and unmeanings, have no objects to be about, whether Everyman's, Locke's, Plato's or even Occam's. Since only dicta and scripta make or fail to make sense, logic and philosophy are to this extent linguistic. But the sense and nonsense that expressions make are not themselves philologists' objects. Our question 'Out of what things are truths and falsehoods made?' was itself a nonsense question. Even if we answer 'Out of concepts', these cannot be denotable things, happenings or processes, etc., even mental or phonetic ones.

(2) Though G. E. Moore pioneered the de-psychologising of logic and philosophy, he lagged behind Frege, Russell and Wittgenstein on questions of Sense/Nonsense and Sense/Reference. Nor did the Paradoxes exercise him.

On the other hand, (*a*) he re-fostered the Socratic idea that philosophy is a search for definitions. The definition of a complex concept, like *danger*, was its 'analysis'; simple concepts, like *yellow*, were indifferently 'indefinable' and 'unanalysable'. Since 'concept' was paraphrased by 'word meaning', philosophers' definitions were soon, against Moore's resistance, half-equated with those of lexicographers. (*b*) Moore confessed that to him personally philosophical ideas came only out of recoils against the odd things said by other philosophers. Having no first-hand puzzles, he moved by exposing the confusions, vaguenesses, non-sequiturs and equivocations of others. Since the harvest of Socratic definitions was meagre, 'analysis' came to signify 'exposure of muddles'. His practice, despite his protests, suggested that philosophy just is linguistic unmuddling.

J. L. Austin took as little as he could after Wittgenstein, a lot after Moore—the un-muddler, not the definer. He too shied away from the Paradoxes, and from puzzles in general. Besides his fine scholarship, he had the nose and heart of a philologist. He was a protector of maltreated nuances and a stamp-collector of idioms. He would sweepingly reprimand philosophers *en masse* for our occupational insensitiveness to idiom; also, less confidently, for our ambitions to bridge abysses instead of cutting steps. He dreamed of reforming our lax fraternity into a researching task-force, and our puzzle-ridden debatings into disciplined semantic fact-findings. The title 'philosopher' irked him, as 'professor' irked Wittgenstein.

Probably he thought of his own, almost botanical classifications of locution-types much less as contributions to philosophy than as elements for a future *Principia Grammatica*. True, it was for an anti-Cartesian end that he had isolated his special little class of the performative affixes, like 'I promise . . .' and 'I hereby name . . .', by which speakers occasionally signal their concurrent communicative intents. The obviously unchallengeable 'I acknowledge . . .' should not be cited as an extra '*cognito*'-type truth. But Austin's interest swung away from these rather incidental signals of intent to the neglected multifariousness of the things that we are doing when we testify, insinuate, command, admit, apologise, promise, threaten, advise, sanction, christen, offer, remind, request, accuse, vote, conclude, etc. These disparate, and generally unpropositional saying-types deserve their Linnaeus, whether or not his discriminations happen to meet needs of, for instance, jurisprudents or epistemologists.

Whatever the niche in *Principia Grammatica* of Austin's 'How to do things with words', it is not by this but—I can see him wince—by his philosophical essays that he will have altered the shapes of things. Nor—I can see his spokesmen frown—is it by his patient, ear-to-ground and usually just discriminations between the contiguous and overlapping concepts of everyday and law-court life. No, it is by his un-Moore-like impatiences with the traditional cruces of philosophy. For he would, with a grimace, snatch up the tangled old skein of Determinism, Freedom and Responsibility; or of Knowledge, Self-Knowledge and Belief; or of Sense-Perception, Appearance and Reality; and unceremoniously shake it inside out.

These brusquely inverted skeins had their own knots, twists and loose ends, but not the inveterate, obstinate ones. Fingers severely drilled in piecemeal unravelling might actually undo these fresh, unaggravated tangles. But it was the impatient shakes that made the difference.

During his tragically early last years, Austin was scanning a conceptual new-found-land of his own. His semi-philosophical work of classifying our multifarious communicative doings loaded him with problems about the very notion of Doing. Some of these were jurisprudential problems. Just why might the courts find that something was, or else was not, or was not altogether, my doing? But there were other problems; and even puzzles. Just how does the perhaps complex and long-term intention with which you do something render yours an altogether different kind of action from my muscularly indistinguishable movement? What more is there to doing than thinking what to do? Why is it absurd to say that

I did exactly—or roughly—293 things yesterday? Is refraining doing something—or nothing? When I kicked and scored, did I do two things or only one? Which one? We cannot tell where Austin would have located the central ridge, if any, of his new terrain; or how, after sedulous, inch-by-inch team-reconnaissances, he would have assaulted it.

Symposium on J. L. Austin[1] is an admirable budget of papers about Austin, written by leading or will-be-leading thinkers. A few of these twenty-six papers are biographical, descriptive or expository. But several are critical, even fiercely critical, of Austin's ideas and methods; others are vigorously critical of these criticisms. Where we expected a vase of memorial tributes, we get a cauldron of peppered meats, all good and many very good. Austin's acerbities are frequently repaid in kind; and he, in his turn, is accused of linguistic insensitiveness, and even of philological amateurishness. Austin made not a stir, but a lot of stirs. This book is a simmer of these vortices.

[1] Edited by K. T. Fann (Routledge and Kegan Paul Ltd., 1969).

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JANE AUSTEN AND THE MORALISTS

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I

Jane Austen is often described as just a miniature-painter. Her blessed 'little bit (two inches wide) of ivory' has too often set the tone of criticism. I mean to show that she was more than this. Whether we like it or not, she was also a moralist. In a thin sense of the word, of course, every novelist is a moralist who shows us the ways or *mores* of his characters and their society. But Jane Austen was a moralist in a thick sense, that she wrote what and as she wrote partly from a deep interest in some perfectly general, even theoretical questions about human nature and human conduct. To say this is not, however, to say that she was a moraliser. There is indeed some moralising in *Sense and Sensibility* and she does descend to covert preaching in *Mansfield Park*. Here I do discern, with regret, the tones of voice of the anxious aunt, and even occasionally of the prig. But for the most part, I am glad to say, she explores and does not shepherd.

I am not going to try to make out that Jane Austen was a philosopher or even a philosopher *manquée*. But I am going to argue that she was interested from the south side in some quite general or theoretical problems about human nature and conduct in which philosophers proper were and are interested from the north side.

To begin with, we should consider the titles of three of her novels, namely, *Sense and Sensibility*, *Pride and Prejudice* and *Persuasion*. It is not for nothing that these titles are composed of abstract nouns. *Sense and Sensibility* really is about the relations between Sense and Sensibility or, as we might put it, between Head and Heart, Thought and Feeling, Judgement and Emotion, or Sensibleness and Sensitiveness. *Pride and Prejudice* really is about pride and about the misjudgements that stem from baseless pride, excessive pride, deficient pride, pride in trivial objects and so on. *Persuasion* really is or rather does set out to be about persuadability, unpersuadability and over-persuadability.

To go into detail. In *Sense and Sensibility* it is not only Elinor, Marianne and Mrs Dashwood who exemplify equilibrium or else inequilibrium between judiciousness and feeling. Nearly all the characters in the novel do so, in their different ways and their different degrees. John Dashwood has his filial and fraternal feelings, but they are shallow ones. They do not overcome his and his wife's calculating selfishness. Sir John Middleton is genuinely and briskly kind, but with a cordiality too general to be really thoughtful. What he does for one person he does with equal zest for another, without considering their differences of need, desert or predilection. He would be in his element in a Butlin's Holiday Camp. Mrs Jennings, whose character changes during the novel, is a thoroughly vulgar woman who yet has, in matters of importance, a sterling heart and not too bad a head. Lucy Steele professes deep feelings, but they are sham ones, while her eye for the main chance is clear and unwavering. Like her future mother-in-law she has too little heart and too much sense of a heartless sort.

Marianne and Elinor are alike in that their feelings are deep and genuine. The difference is that Marianne lets her joy, anxiety or grief so overwhelm her that she behaves like a person crazed. Elinor keeps her head. She continues to behave as she knows she should behave. She is deeply grieved or worried, but she does not throw to the winds all considerations of duty, prudence, decorum or good taste. She is sensitive *and* sensible, in our sense of the latter adjective. I think that Elinor too often and Marianne sometimes collapse into two-dimensional samples of abstract types; Elinor's conversation occasionally degenerates into lecture or even homily. This very fact bears out my view that Jane Austen regularly had one eye, and here an eye and a half, on a theoretical issue. The issue here was this: must Head and Heart be antagonists? Must a person who is deeply grieved or

deeply joyous be crazy with grief or joy? To which Jane Austen's answer, the correct answer, is, 'No, the best Heart and the best Head are combined in 'the best person.' But Elinor sometimes collapses into a Head rather loosely buttoned on to a Heart, and then she ceases to be a person at all.

Jane Austen brings out the precise kinds of the sensibility exhibited by Elinor and Marianne by her wine-taster's technique of matching them not only against one another but also against nearly all the other characters in their little world. The contrast between Lucy Steele and both Elinor and Marianne is the contrast between sham and real sensibility or emotion; the contrast between Willoughby and, say, Edward is the contrast between the genuine but shallow feelings of the one and the genuine and deep feelings of the other. Lady Middleton's feelings are few and are concentrated entirely on her own children. Her husband's feelings are spread abroad quite undiscriminatingly. He just wants everyone to be jolly.

I want briefly to enlarge on this special wine-taster's technique of comparative character-delineation. Jane Austen's great predecessor, Theophrastus, had described just one person at a time, the Garrulous Man by himself, say, or the Mean Man by himself. So the Garrulity or the Meanness is not picked out by any contrasts or affinities with contiguous qualities. Our view of the Garrulous Man is not clarified by his being matched against the Conversationally Fertile Man on the one side, or against the Conversationally Arid Man on the other. The Meanness of the Mean Man is not brought into relief by being put into adjacency with the meritorious Austerity of a Socrates or the allowable Close Bargaining of a dealer. By contrast, Jane Austen's technique is the method of the vintner. She pin-points the exact quality of character in which she is interested, and the exact degree of that quality, by matching it against the same quality in different degrees, against simulations of that quality, against deficiencies of it and against qualities which, though different, are brothers or cousins of that selected quality. The ecstatic emotionality of her Marianne is made to stand out against the sham, the shallow, the inarticulate and the controlled feelings of Lucy Steele, Willoughby, Edward and Elinor. To discriminate the individual taste of any one character is to discriminate by comparison the individual taste of every other character. That is to say, in a given novel Jane Austen's characters are not merely blankly different, as Cheltenham is blankly different from Helvellyn. They are different inside the same genus, as Cheltenham is different from Bath or Middlesbrough, or as Helvellyn is different from Skiddaw or Boar's Hill.

Thus in *Pride and Prejudice* almost every character exhibits too much or too little pride, pride of a bad or silly sort or pride of a good sort, sham pride or genuine pride and so forth. Elizabeth Bennet combines a dangerous cocksureness in her assessments of people with a proper sense of her own worth. Jane is quite uncocksure. She is too diffident. She does not resent being put upon or even realise that she is being put upon. There is no proper pride, and so no fight in her. Their mother is so stupid and vulgar that she has no sense of dignity at all, only silly vanities about her dishes and her daughters' conquests. Mr Bennet has genuine pride. He does despise the despicable. But it is inert, unexecutive pride. He voices his just contempt in witty words, but he does nothing to prevent or repair what he condemns. It is the pride of a mere don, though a good don. Bingley has no special pride, and so, though a nice man, spinelessly lets himself be managed by others where he should not. His sisters are proud in the sense of being vain and snobbish.

Darcy is, to start with, haughty and snobbish, a true nephew of Lady Catherine de Burgh. His early love for Elizabeth is vitiated by condescension. He reforms into a man with pride of the right sort. He is proud to be able to help Elizabeth and her socially embarrassing family. He now knows what is due from him as well as what is due to him. Mr Collins is the incarnation of vacuous complacency. He glories in what are mere reflections from the rank of his titled patroness and from his own status as a clergyman. He is a soap-bubble with nothing at all inside him and only bulging refractions from other things on his rotund surface.

The same pattern obtains in *Persuasion*. Not only Anne Elliot but her father, sisters, friends and acquaintances are described in terms of their kinds and degrees of persuadability and unpersuadability. Anne had suffered from having dutifully taken the bad advice of the over-cautious Lady Russell. Her father and sister Elizabeth can be persuaded to live within their means only by the solicitor's shrewd appeals to quite unworthy considerations. Her sister Mary is so full of self-pity that she can be prevailed on only by dexterous coaxings. Louisa Musgrove is too headstrong to listen to advice, so she cracks her skull. Her sister Henrietta is so over-persuadable that she is a mere weathercock. Mr Elliot, after his suspect youth, is apparently eminently rational. But it turns out that he is amenable to reason only so long as reason is on the side of self-interest.

This particular theme-notion of persuadability was, in my opinion, too boring to repay Jane Austen's selection of it, and I believe that she herself

found that her story tended to break away from its rather flimsy ethical frame. Certainly, when Anne and Wentworth at last come together again, their talk does duly turn on the justification of Anne's original yielding to Lady Russell's persuasion and on the unfairness of Wentworth's resentment of her so yielding. But we, and I think Jane Austen herself, are happy to hear the last of this particular theme. We are greatly interested in Anne, but not because she had been dutifully docile as a girl. We think only fairly well of Louisa Musgrove, but her deafness to counsels of prudence is not what makes our esteem so tepid. Some of the solidest characters in the novel, namely the naval characters, are not described in terms of their persuadability or unpersuadability at all, and we are not sorry.

I hope I have made out something of a case for the view that the abstract nouns in the titles *Sense and Sensibility*, *Pride and Prejudice* and *Persuasion* really do indicate the controlling themes of the novels; that Jane Austen wrote *Sense and Sensibility* partly, at least, from an interest in the quite general or theoretical question whether deep feeling is compatible with being reasonable; that she wrote *Pride and Prejudice* from an interest in the quite general question what sorts and degrees of pride do, and what sorts and degrees of pride do not go with right thinking and right acting; and that she wrote *Persuasion* from an interest—I think a waning interest and one which I do not share—in the general question when people should and when they should not let themselves be persuaded by what sorts of counsels.

I shall now become bolder. I shall now say what corresponding theme-notions constitute the frames of *Emma* and *Mansfield Park*, though no abstract nouns occur in their titles.

If cacophony had not forbidden, *Emma* could and I think would have been entitled *Influence and Interference*. Or it might have been called more generically *Solicitude*. Jane Austen's question here was: What makes it sometimes legitimate or even obligatory for one person deliberately to try to modify the course of another person's life, while sometimes such attempts are wrong? Where is the line between Meddling and Helping? Or, more generally, between proper and improper solicitude and unsolicitude about the destinies and welfares of others? Why was Emma wrong to try to arrange Harriet's life, when Mr Knightley was right to try to improve Emma's mind and character? Jane Austen's answer is the right answer. Emma was treating Harriet as a puppet to be worked by hidden strings. Mr Knightley advised and scolded Emma to her face. Emma knew what Mr Knightley required of her and hoped for her. Harriet was not to

know what Emma was scheming on her behalf. Mr Knightley dealt with Emma as a potentially responsible and rational being. Emma dealt with Harriet as a doll. Proper solicitude is open and not secret. Furthermore, proper solicitude is actuated by genuine good will. Improper solicitude is actuated by love of power, jealousy, conceit, sentimentality and so on.

To corroborate this interpretation we should notice, what we now expect, that the novel's other characters also are systematically described in terms of their different kinds or degrees of concernment or unconcernment with the lives of others. Emma's father is a fusser, who wants to impose his own hypochondriacal regimen on others. But his intentions are kindly and his objectives are not concealed. He is a silly old darling, but he is not a schemer. He tries in vain to influence his friends' meals and his grandchildren's holiday resorts. He is over-solicitous and solicitous about trivialities, but he does not meddle, save, nearly, once, and then John Knightley properly loses his temper with him. Mrs Elton is silly and vulgar. Her fault is that of officiousness. She tries to force her services on other people. She is a nuisance, but there is nothing underhand about her; rather the reverse, she advertises too much the unwanted benefits that she tries to impose on her victims. John Knightley is somewhat refreshingly unconcerned with other people's affairs outside his own family circle. He is honest, forthright and perceptive, but, unlike his wife, her father and her sister Emma, he does not interest himself in things that are not his business. He is not brutal or callous, and only twice or three times is he even testy; but other people's affairs are not naturally interesting to him. Gossip bores him and social gatherings seem to him a weary waste of time. Mr Elton differs from John Knightley in just this respect, that Mr Elton affects solicitude without really feeling it, while John Knightley is frankly unsolicitous. By contrast, Miss Bates is an incessant, though entirely kindly natterer about other people's affairs. She cares very much about everybody's welfare, though her concern is, through no fault of her own, confined to talk. She is debarred from doing anything for anyone save her old mother, but all her little thoughts and all her little utterances are enthusiastically benevolent ones. She is the twittering voice of universal good will. Mr Knightley is like her in good will, but unlike her in that his is executive and efficient good will. He says little; he just helps. He does what needs to be done for people, but he does not do it behind their backs, nor does he shout about it to the world. Finally, Frank Churchill is matched against Mr Knightley in that while he too does things which

make small or big differences to other people's lives, he often does surreptitious things. He does not hurry to come to meet his new step-mother; and when he does come it is because his crypto-fiancée has just returned to the village. He flirts with Emma, but does not let her know that he is only playing a game, and playing a game as a camouflage. He forces a piano on his fiancée without letting her know to whom she is indebted. He is not wicked, but he is not above-board, so many of his actions affecting others belong to the class of interference, and not of legitimate intervention. He is ready to make use of people without their knowledge or consent, in order to get himself out of difficulties. He is like Emma in being a bit of a schemer, but he is unlike her in that she tried to shape the whole life of Harriet; he tricked people only for momentary purposes. He did not want to make big or lasting differences to anybody's life, save his own and his fiancée's; but he was reckless of the danger of making such a difference without intending it. He meddled by covert gambling, she meddled by covert plotting. It is no accident that he was the adopted son of a domineering and wealthy old lady and her intimidated husband. In effect they had trained him not to be forthright. This theme-notion of *Emma*, that of *Influence and Interference*, is explicitly brought out in the conversation in which the heroine and hero first open their hearts to each other. These two abstract nouns both occur there, as they occur sporadically elsewhere in the novel.

Now for *Mansfield Park*, Jane Austen's profoundest, but also her most didactic novel. Its theme-notion is the connection, to use her own ugly phrase, between fraternal and conjugal ties. Here nearly all the characters are systematically described in terms of the affection which they feel, or do not feel, or which they only pretend to feel for their own flesh and blood. Their capacities or incapacities to make good husbands or wives are a direct function of their lovingness or unlovingness inside their own families. Fanny's devotedness to her brother William, her cousins, aunt and uncle gets its reward in happy marriage; while her coldheartedness at home results in marital disaster for Maria.

Jane Austen duly describes not only the major but also many of the minor characters in terms of their excellences and defects as brothers, aunts, daughters, cousins and parents. Sir Thomas Bertram is genuinely fond of his wife, children and niece. But he is too stiff and pompous to be intimate with them. He is affectionate at a distance. So his children do not love him and he does not understand them. Lady Bertram is drowsily fond

of her family but is so bovine and inert that she seldom does anything or says anything to affect anybody. Her sister, Mrs Norris, is an officious and mischief-making aunt and an unforgiving sister. Her eloquent professions of love for the Bertrams are a mere cover for self-importance. With such parents and such an aunt, Tom, Maria and her sister grow up selfish and coldhearted. Maria marries for the wrong reasons and destroys her marriage for worse ones.

The real hero of the story is Fanny's brother, William. He is gay, affectionate, vigorous, straight and brave, and he makes Fanny happy. It is their brother-sister love which is the paradigm against which to assess all the others. Fanny's love for her cousin Edmund had begun as a child's love for a deputy-Willliam.

Henry and Mary Crawford have accomplishments, vitality, wit, artistic tastes and charm. But they speak undutifully in public about the unsatisfactory uncle who had brought them up; they resent the unexpected return of Sir Thomas Bertram from Antigua to the bosom of his own family, simply because it puts a stop to their theatricals; and even between brother and sister the relations are cordial rather than intimate. Unlike William, Henry never writes a proper letter to his sister. Nor does he mind setting the Bertram sisters at loggerheads by flirting with both at once. He has little personal or vicarious family feeling. Critics have lamented that Henry Crawford does not marry Fanny. But this would have ruined the point. He has indeed everything that she or we could wish her husband to have—everything save two. He lacks high principles, and he lacks filial and fraternal lovingness. He is without those very qualities which make William the ideal brother. Henry could never be what Edmund was, a deputy-William. Though by no means without a heart, he was too shallow-hearted for him and Fanny ever to be the centres and circumferences of one another's lives.

Northanger Abbey is the one novel of the six which does not have an abstract ethical theme for its backbone. I think that when Jane Austen began to write this novel, it had been her sole intention to burlesque such novels as *The Mystery of Udolpho* by depicting a nice but gullible teenager looking at the actual world through, so to speak, the celluloid film of Gothic romances. But even here Jane Austen's ethical interest came quite soon to make its contribution. For we soon begin to find that Catherine, though a gullible ninny about how the actual world runs, is quite ungullible about what is right and wrong, decorous and indecorous. Her

standards of conduct, unlike her criteria of actuality, are those of a candid, scrupulous and well-brought up girl, not those of the unschooled, novel-struck girl that she also is. Jane Austen began *Northanger Abbey* just poking fun at factual gullibility; but she soon became much more interested in moral ungullibility. Jane Austen the moralist quickly outgrew Jane Austen the burlesquer.

II

Jane Austen did, then, consider quite general or theoretical questions. These questions were all moral questions; though only in *Mansfield Park* and *Sense and Sensibility* did she cross over the boundary into moralising. I am now going to be more specific and say what sorts of moral ideas were most congenial to her. I will try to bring out together both what I mean by this question and what its answer is.

In the eighteenth century, and in other centuries too, moralists tended to belong to one of two camps. There was what I shall call, with conscious crudity, the Calvinist camp, and there was what I shall call the Aristotelian camp. A moralist of the Calvinist type thinks, like a criminal lawyer, of human beings as either Saved or Damned, either Elect or Reject, either children of Virtue or children of Vice, either heading for Heaven or heading for Hell, either White or Black, either Innocent or Guilty, either Saints or Sinners. The Calvinist's moral psychology is correspondingly bi-polar. People are dragged upwards by Soul or Spirit or Reason or Conscience; but they are dragged down by Body or Flesh or Passion or Pleasure or Desire or Inclination. A man is an unhappy combination of a white angelic part and a black satanic part. At the best, the angelic part has the satanic part cowed and starved and subjugated now, and can hope to be released altogether from it in the future. Man's life here is either a life of Sin or else it is a life of self-extrication from Sin. We find people being depicted in such terms in plenty of places. The seducer in the *Vicar of Wakefield* is Wickedness incarnate. So he has no other ordinary qualities. Fanny Burney's bad characters are pure stage-villains. Occasionally Johnson in the *Rambler* depicts persons who are all Black; and since they possess no Tuesday morning attributes, we cannot remember a thing about them afterwards. They are black cardboard and nothing more. The less frequent angelic or saintly characters are equally unalive, flat and forgettable.

In contrast with this, the Aristotelian pattern of ethical ideas represents

people as differing from one another in degree and not in kind, and differing from one another not in respect just of a single generic Sunday attribute, Goodness, say, or else Wickedness, but in respect of a whole spectrum of specific week-day attributes. *A* is a bit more irritable and ambitious than *B*, but less indolent and less sentimental. *C* is meaner and quicker-witted than *D*, and *D* is greedier and more athletic than *C*. And so on. A person is not black or white, but iridescent with all the colours of the rainbow; and he is not a flat plane, but a highly irregular solid. He is not blankly Good or Bad, blankly angelic or fiendish; he is better than most in one respect, about level with the average in another respect, and a bit, perhaps a big bit, deficient in a third respect. In fact he is like the people we really know, in a way in which we do not know and could not know any people who are just Bad or else just Good.

Jane Austen's moral ideas are, with certain exceptions, ideas of the Aristotelian and not of the Calvinist pattern. Much though she had learned from Johnson, this she had not learned from him. When Johnson is being ethically solemn, he draws people in black and white. So they never come to life, any more than the North Pole and the South Pole display any scenic features. Jane Austen's people are, nearly always, alive all over, all through and all round, displaying admirably or amusingly or deplorably proportioned mixtures of all the colours that there are, save pure White and pure Black. If a Calvinist critic were to ask us whether Mr Collins was Hell-bound or Heaven-bent, we could not answer. The question does not apply. Mr Collins belongs to neither pole; he belongs to a very particular parish in the English Midlands. He is a stupid, complacent and inflated ass, but a Sinner? No. A Saint? No. He is just a ridiculous figure, that is, a figure for which the Calvinist ethical psychology does not cater. The questions Was Emma Good? Was she Bad? are equally unanswerable and equally uninteresting. Obviously she should have been smacked more often when young; obviously, too, eternal Hell-fire is not required for her.

Let me now bring out my reservations. Jane Austen does, with obvious reluctance and literary embarrassment, use the criminal lawyer's Black–White process three or four times. Willoughby in *Sense and Sensibility* begins by being or at least seems to be, behind his attractive exterior, black-hearted. It turns out that he is only a bit grey at heart and not black. The latter shade is reserved for his fiancée, whom therefore we do not meet. In *Pride and Prejudice* Wickham and Lydia do become regulation Sinners, as do Mr Elliot and Mrs Clay in *Persuasion*. Fortunately London

exists, that desperate but comfortingly remote metropolis; so Jane Austen smartly bundles off her shadowy representatives of vice to that convenient sink. It is in London that Henry Crawford and Maria enjoy or endure their guilty association. Thus Jane Austen is exempted by the width of the Home Counties from having to try to portray in her pastel-shades the ebony complexion of urban sin. Human saints and angels gave her no such literary anxieties. She just forgot that there were officially supposed to exist such arctic paragons, a piece of forgetfulness for which we are not inclined to reprove her.

As early as in *Northanger Abbey* Jane Austen explicitly relinquishes the Black–White, Sinner–Saint dichotomy. Catherine Morland, brought to her senses, reflects:

> Charming as were all Mrs. Radcliffe's works . . . it was not in them, perhaps, that human nature, at least in the midland counties of England, was to be looked for. Of the Alps and Pyrenees, with their pine-forests and their vices, they might give a faithful delineation; and Italy, Switzerland and the South of France might be as fruitful in horrors as they were there represented. Catherine dared not doubt beyond her own country, and even of that, if hard pressed, would have yielded the northern and western extremities. But in the central part of England there was surely some security of existence even of a wife not beloved; in the laws of the land, and the manners of the age. Murder was not tolerated; servants were not slaves, and neither poison nor sleeping potions were to be procured, like rhubarb, from every druggist. Among the Alps and Pyrenees perhaps, there were no mixed characters. There, such as were not as spotless as an angel, might have the dispositions of a fiend. But in England it was not so; among the English, she believed, in their hearts and habits there was a general though unequal mixture of good and bad. Upon this conviction she would not be surprised if even in Henry and Eleanor Tilney some slight imperfection might hereafter appear; . . .

In *Persuasion* Jane Austen gives us what she would have been surprised to hear was a good rendering of Aristotle's doctrine of the Mean.

> Anne wondered whether it ever occurred to him [Wentworth] to question the justness of his own previous opinion as to the universal felicity and

> advantage of firmness of character; and whether it might not strike him that like all other qualities of mind it should have its proportions and limits.

Not only was Jane Austen's ethic, if that is not too academic a word, Aristotelian in type, as opposed to Calvinistic. It was also secular as opposed to religious. I am sure that she was personally not merely the dutiful daughter of a clergyman, but was genuinely pious. Yet hardly a whisper of piety enters into even the most serious and most anguished meditations of her heroines. They never pray and they never give thanks on their knees. Three of her heroes go into the church, and Edmund has to defend his vocation against the cynicisms of the Crawfords. But not a hint is given that he regards his clerical duty as that of saving souls. Routine church-going on Sunday with the rest of the family gets a passing mention three or four times, and Fanny is once stated to be religious. But that is all. I am not suggesting that Jane Austen's girls are atheists, agnostics or Deists. I am only saying that when Jane Austen writes about them, she draws the curtain between her Sunday thoughts, whatever they were, and her creative imagination. Her heroines face their moral difficulties and solve their moral problems without recourse to religious faith or theological doctrines. Nor does it ever occur to them to seek the counsels of a clergyman.

Lastly, her ethical vocabulary and idioms are quite strongly laced with aesthetic terms. We hear of 'moral taste', 'moral and literary tastes', 'beauty of mind', 'the beauty of truth and sincerity', 'delicacy of principle', 'the Sublime of Pleasures'. Moreover there is a prevailing correlation between sense of duty, sense of propriety and aesthetic taste. Most of her people who lack any one of these three, lack the other two as well. Mrs Jennings is the only one of Jane Austen's vulgarians who is allowed, none the less, to have a lively and just moral sense. Catherine Morland, whose sense of what is right and decorous is unfailing, is too much of an ignoramus yet to have acquired aesthetic sensibility, but the two Tilneys have all three tastes or senses. The Crawfords are her only people who combine musical, literary and dramatic sensitivity with moral laxity; Henry Crawford reads Shakespeare movingly, and yet is a bit of a cad. Elinor Dashwood, Anne Elliot and Fanny Price have good taste in all three dimensions. Emma Woodhouse is shaky in all three dimensions, and all for the same reason, that she is not effectively self-critical.

III

So Jane Austen's moral system was a secular, Aristotelian ethic-*cum*-aesthetic. But to say all this is to say that her moral *Weltanschauung* was akin to that of Lord Shaftesbury. Shaftesbury too had, a century before, assimilated moral sense to artistic sense, aesthetic taste to moral taste. A Grecian by study and predilection, he had followed Aristotle in preference to Plato, the Stoics or the Epicureans. A Deist rather than a Christian, he had based his religion, such as it was, on his ethics and aesthetics, rather than these on his religion. So I now put forward the historical hypothesis that Jane Austen's specific moral ideas derived, directly or indirectly, knowingly or unknowingly, from Shaftesbury. Certainly she never mentions him by name; but nor is any moralist mentioned by name, even in those contexts in which her girl characters are described as studying the writings of moralists. Anne Elliot does advise the melancholy Captain Benwick to read, *inter alios*, 'our best moralists'; Fanny Price tutors her young sister, Susan, in history and morals; that teen-aged bluestocking, Mary Bennet, makes long extracts from the writings of moralists, and regales her company with their most striking platitudes. But the word 'moralist' would cover Goldsmith or Pope as well as Hutcheson or Hume, Johnson or Addison as well as Shaftesbury or Butler. We cannot argue just from the fact that Jane Austen speaks of moralists to the conclusion that she has any accredited moral philosophers in mind.

My reasons for thinking that Shaftesbury was the direct or indirect source of Jane Austen's moral furniture are these:

(1) I have the impression, not based on research or wide reading, that throughout the eighteenth and early nineteenth centuries the natural, habitual and orthodox ethic was, with various modifications and mitigations, that Black–White, Saint–Sinner ethic that I have crudely dubbed 'Calvinistic'. Hutcheson, Butler and Hume, who were considerably influenced by Shaftesbury, all dissociate themselves from the Angel–Fiend psychology, as if this was prevalent. The essays, whether in the *Spectator*, the *Idler* or the *Rambler*, though I have only dipped into them, seem to me to use the Black–White process when very serious moral matters are discussed; but, perhaps partly for this reason, they tend not to treat very often such sermon-topics. The light touch necessary for an essay could not without awkwardness be applied to Salvation or Damnation. Fielding, who did

know his Shaftesbury, was too jolly to bother much with satanic or angelic characters. There are many Hogarthian caricatures in his novels, but they are there to be laughed at. They are not Awful Warnings. That is, I have the impression that the secular and aesthetic Aristotelianism of Shaftesbury had not acquired a very wide vogue. It was not in the air breathed by the generality of novelists, poets and essayists. Perhaps there were latitudinarian sermons, other than Bishop Butler's, in which concessions were made to Shaftesbury and Hutcheson. I do not know. But I fancy that these ideas were current chiefly inside small, sophisticated circles in which 'Deist' was not a term of abuse and in which one could refer without explanation or apology to Locke and Descartes, Hobbes and Aristotle, Epicurus and Spinoza. So, if I am right in my assimilation of Jane Austen's moral ideas to those of Shaftesbury, then I think that she did not absorb these ideas merely from the literary, ecclesiastical and conversational atmosphere around her. I do not, on the other hand, insist that she got them by studying the writings of Shaftesbury himself, though if I was told that she got them either from Shaftesbury himself or from his donnish Scotch disciple, Hutcheson, I should without hesitation say, 'Then she got them from Shaftesbury.' Of Hutcheson's epistemological professionalisation of Shaftesbury there is not an echo in Jane Austen. She talks of 'Moral Sense' without considering the academic question whether or not it is literally a Sixth Sense. Nor do I find any echoes in her from Butler or from Hume, who in their turn echo little or nothing of the aestheticism of Shaftesbury.

(2) Another thing that persuades me that Jane Austen was influenced fairly directly by Shaftesbury himself, besides the general secular and aesthetic Aristotelianism which she shares with him, is the vocabulary in which she talks about people. Her stock of general terms in which she describes their minds and characters, their faults and excellences is, *en bloc*, Shaftesbury's. Almost never does she use either the bi-polar ethical vocabulary or the corresponding bi-polar psychological vocabulary of the Black–White ethic. The flat, generic antitheses of Virtue and Vice, Reason and Passion, Thought and Desire, Soul and Body, Spirit and Flesh, Conscience and Inclination, Duty and Pleasure hardly occur in her novels. Instead we get an ample, variegated and many-dimensional vocabulary. Her descriptions of people mention their tempers, habits, dispositions, moods, inclinations, impulses, sentiments, feelings,

affections, thoughts, reflections, opinions, principles, prejudices, imaginations and fancies. Her people have or lack moral sense, sense of duty, good sense, taste, good-breeding, self-command, spirits and good humour; they do or do not regulate their imaginations and discipline their tempers. Her people have or lack knowledge of their own hearts or their own dispositions; they are or are not properly acquainted with themselves; they do or do not practise self-examination and soliloquy. None of these general terms or idioms is, by itself, so far as I know, peculiar to Shaftesbury and herself. It is the amplitude of the stock of them, and the constant interplays of them which smack strongly of Shaftesbury. It had been Shaftesbury's business, so to speak, to Anglicise the copious and elastic discriminations of which Aristotle had been the discoverer. In Jane Austen Shaftesbury's Anglicisation is consummated without his floridity.

Given the stilted bi-polar vocabulary of, say, 'Reason and Passion' or 'Spirit and Flesh', then it is easy and tempting to reserve the top drawer for the one and the bottom drawer for the other. But given the copious, specific and plastic vocabulary of Aristotle or Shaftesbury, it then becomes a hopeless as well as a repellent task to split it up into, say, fifteen top-drawer terms and seventeen bottom-drawer terms, into a platoon of sheep-terms for angelic and a platoon of goat-terms for satanic powers, impulses and propensities. To the employer of a hundred crayons the dichotomy 'Chalk or Charcoal' has no appeal. For example, John Knightley's occasional testiness was obviously not a Virtue. But nor was it a Vice. At worst it was a slight weakness, and in his particular domestic situation it was even a venial and rather likeable condiment. Where the icing-sugar is too thick, a splash of lemon-juice is a welcome corrective. We would not wish to be surrounded by John Knightleys. But we would not wish to be without them altogether.

(3) There is one word which Shaftesbury and Jane Austen do frequently use in the same apparently idiosyncratic way, and that a way which is alien to us and, I think, subject to correction, alien to most of the other eighteenth- and early nineteenth-century writers. This is the word 'Mind', often used without the definite or indefinite article, to stand not just for intellect or intelligence, but for the whole complex unity of a conscious, thinking, feeling and acting person. I am not here referring to the philosophico-theological use of 'Mind' for, roughly speaking, the

Deist's or Pantheist's God. We do find this use occurring now and then in Shaftesbury, as in Pope.

Shaftesbury and Jane Austen both speak of the Beauty of Mind or the Beauty of a Mind, where they are talking about ordinary people; and when Shaftesbury speaks of the Graces and Perfections of Minds, of the Harmony of a Mind, or the Symmetry and Order of a Mind and of the Freedom of Mind he is talking in his jointly aesthetic and ethical manner just of laudable human beings. Jane Austen employs a lot of analogous phrases: 'Inferior in talent and all the elegancies of mind', 'delicacy of mind', 'liberty of mind or limb' (all from *Emma*); '[he] has a thinking mind', '. . . in temper and mind', 'Marianne's mind could not be controlled', 'her want of delicacy, rectitude and integrity of mind' (all from *Sense and Sensibility*). In 'one of those extraordinary bursts of mind' (*Persuasion*, ch. VII) the word 'mind' perhaps means 'intelligence' or just 'memory'. Now I think that Shaftesbury used this term 'Mind' as his preferred rendering of Aristotle's ψυχὴ, for which the normal rendering by 'Soul' would, I guess, have had for him too Christian or too parsonical a ring. He does once or twice use the disjunction 'mind or soul'. Jane Austen is even charier than Shaftesbury of employing the word 'soul'; and she, I surmise, just takes over the Shaftesburian use of 'Mind', very likely without feeling, what I think most philosophers would have felt, that this use was an irregular and strained one. If the Shaftesburian uses of the word 'Mind' did not subsequently become current in literature, sermons or conversation, or even, as I am sure they did not, in the philosophical writings of Butler and Hume, then the fact that Jane Austen often makes the same and similar uses of it would be fairly strong evidence that she drew directly on Shaftesbury. But whether this is the case or not is a matter of philological history, in which field I am not even an amateur. I am primarily arguing for the general, if vague, conclusion that Jane Austen was, whether she knew it or not, a Shaftesburian. It is a dispensable sub-hypothesis that she had studied the rather tedious and high-flown writings of Shaftesbury himself. Shaftesbury had opened a window through which a relatively few people in the eighteenth century inhaled some air with Aristotelian oxygen in it. Jane Austen had sniffed this oxygen. It may be that she did not know who had opened the window. But I shall put an edge on the issue by surmising, incidentally, that she did know.

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